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ABSTRACT

Developed as a vehicle of communication for the Reading Recovery Council of North America, this journal represents an international effort to connect researchers, teachers, and all those interested in early literacy. Articles in the first issue of this second volume are: "Oral Language: Assessment and Development in Reading Recovery in the United States" (Lance M. Gentile); "'But I Just Want to Teach Regular Kids!' Understanding Preservice Teachers' Beliefs about Teaching Children Experiencing Difficulty Learning to Read" (Susan L. Niierstheimer, Carol J. Hopkins and Maribeth Cassidy Schmitt); and "Success of Old Order Amish Children in a Strategy-Oriented Program for Children At Risk of Failure in Reading" (Joseph F. Yukish and John W. Fraas). It also contains articles reprinted from other sources: "Learning Disabilities: A Barrier to Literacy Instruction" (Richard Long); "Helping Low-Achieving First-Grade Readers: A Program Combining Reading Recovery Tutoring and Small-Group Instruction" (Linda Dorn and Anne Allen); and "Reading Recovery and Children with English as a Second Language" (Pauline E. Smith). Articles in the second issue are: "Phonics and Politics: 'Sounding Out' the Consequences" (Noel K. Jones); "A Vygotskian Perspective on Literacy Acquisition: Talk and Action in the Child's Construction of Literate Awareness" (Linda Dorn); "A New National Alliance: Special Education and Reading Recovery" (David J. Moriarty); "Early Intervention in Children with Reading Difficulties: An Evaluation of Reading Recovery and a Phonological Training" (Kathy Sylva and Jane Hurry); "The Mischief of the Lost Lesson: An Analysis of the Sources of Discontinuity in Reading Recovery Services" (Lee Skandalaris and Frederica C. Frost); "Pedagogical Reasoning: Understanding Teacher Decision Making in a Cognitive Apprenticeship Setting" (Cynthia B. Elliot); and "First and Second Round Reading Recovery: What Difference Does It Make for Discontinuation and Program Length?" (Anne K. Rhodes-Kline). (RS)

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An International Journal of Early Literacy

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An International Journal of Early Literacy

TABLE OF CONTENTS

ORAL LANGUAGE: ASSESSMENT AND DEVELOPMENT IN READING RECOVERY IN THE UNITED STATES
Lance M. Gentile
3

"BUT I JUST WANT TO TEACH REGULAR KIDS!" UNDERSTANDING PRESERVICE TEACHERS' BELIEFS ABOUT TEACHING CHILDREN EXPERIENCING DIFFICULTY LEARNING TO READ
Susan L. Nierstheimer, Carol J. Hopkins, and Maribeth Cassidy Schmitt
15

SUCCESS OF OLD ORDER AMISH CHILDREN IN A STRATEGY-ORIENTED PROGRAM FOR CHILDREN AT RISK OF FAILURE IN READING
Joseph F. Yukish and John W. Fraas
25

Reprinted Articles

LEARNING DISABILITIES: A BARRIER TO LITERACY INSTRUCTION
Richard Long
41

HELPING LOW-ACHIEVING FIRST GRADE READERS: A PROGRAM COMBINING READING RECOVERY TUTORING AND SMALL-GROUP INSTRUCTION
Linda Dorn and Anne Allen
49

READING RECOVERY AND CHILDREN WITH ENGLISH AS A SECOND LANGUAGE
Pauline E. Smith
61

ORAL LANGUAGE: ASSESSMENT AND DEVELOPMENT IN READING RECOVERY IN THE UNITED STATES

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*LITERACY,
TEACHING AND
LEARNING*

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6

THE ROLE OF ORAL LANGUAGE IN LITERACY IS WELL ESTABLISHED (CLAY, 1985, 1991; Enright & McClosky, 1988; Hanf-Buckley, 1992; McLaughlin, 1985). This article underscores:

1. The selection of English language learning children (ELL) for intervention in Reading Recovery using the Observation Survey (OS) but suggests oral language as a component of standardized and informal assessment;
2. Ways to pay *special attention* to oral language development for ELL children and create opportunities for talking across the components of a Reading Recovery lesson which may be more supportive, efficient, and cost effective;
3. The need for carefully designed studies related to the social and verbal interactions between the teacher and ELL children during Reading Recovery lessons; and
4. The need for research that investigates the effects of ELL children's learning to control basic sentence structures and their successful discontinuation from the program.

Clay's Record of Oral Language (ROL)

In New Zealand, an abundance of research has identified the differences among children who enter school at five years of age (Clay, 1985; Renwick, 1984). One of the major differences schools measure and prepare for is the level of a child's oral language. An assessment is used and when the results show a child does not possess oral language sufficient to begin formal reading and writing instruction, an oral language program of learning is recommended. In an early study, Clay (1985) advised:

> If we eased up a little on early reading and writing in the first six months of school not pushing so hard to get children further, earlier, where could we direct our energies? We could schedule time when children with poor language skills would be encouraged to initiate learning opportunities for themselves and then be encouraged to talk, to question, to explain to other children and to the teacher as she moves among them extending their expressions of ideas into an oral statement. (p. 36)

In children's first year of schooling, New Zealand teachers are encouraged to provide intense, consistent, daily emergent literacy instruction by organizing specific talk-centered activities and interrelating oral language with reading and writing for those whose communication styles differ from the teachers' (Au & Mason, 1981; Cazden, 1988; Clay, 1985; Jamieson, 1977; Mackay, 1973). In the United States, teachers are challenged by a far greater diversity of socioeconomic problems and languages among children beginning school and efforts vary widely to address their oral language development (Peregoy & Boyle, 1993).

After years of researching the effects of oral language development on children's reading and writing, Clay, Gill, Glynn, McNaughton, and Salmon (1983) created a practical and useful instrument, *Record of Oral Language and Biks and Gutches*, to identify those needing oral language assessment and instructional modifications. Other formal measures of oral language are useful to Reading Recovery teachers (i.e., Student Oral Language Observational Matrix [SOLOM, Parker, Dolson, & Gold, 1985], Language Assessment Scales, [Duncan & De Avila, 1977], Basic Inventory of Natural Language [Herbert, 1977], or the Bilingual Syntax Measure [Burt, Dulay, & Hernandez-Chavez, 1975]).

However, Clay's focus in the ROL on basic sentence structures to develop oral language fluency supports her theory (1991) of how children relate language and print (p. 39). It examines the language structures ELL children control in their speech. These form the bulwark of much of what they may read and write during Reading Recovery lessons. Furthermore, the ROL gives teachers:

- insight into ways young children control different sentence structures in English.
- useful ways of checking on a child's control of the language structures needed to do school work.
- a way to identify the most advanced structural level of oral language that a child might listen to and fully understand.
- a way to measure change in oral language competency due to specific instruction or from a child's environment, and
- a way to identify and select children whose language development may require special attention.

The ROL has two parts. Part I contains the basic levels and diagnostic sentences. Part II contains a series of pictures and questions related to the pictures that require a child to demonstrate control over inflections of English. Part II may be less important in Reading Recovery. It is not included here because research has demonstrated that typically inflection and pronunciation develop in the later stages of second language acquisition (Jackson, 1980; Mace-Matluck, 1981).

Part I: Levels Sentences and Diagnostic Sentences

The ROL has three sentence levels grouped on the basis of difficulty. The teacher reads these simple, declarative sentences out loud and the child is asked to repeat them. Clay (In Clay, et al., 1983) said, "research has shown that when we analyse a child's attempts to repeat a carefully constructed set of sentences we discover also those grammatical structures which he may be just beginning to understand but may not yet use in normal speech" (p. 10). An exact spoken repetition of each sentence by the child is scored as one point. There are two examples for each sentence level and seven sentences in each section making a total of 42 sentences across the three levels of Part I.

If a child scores less than 13 on the ROL she or he is unable to repeat Type A, simple sentences in Level 1 accurately. These sentences are made up of a subject, the verb to be, and some other simple statement. They do not have an object (e.g., My brother's knees are dirty. My father's radio is broken.). For a complete description of Levels Sentence types from B through G the reader can refer to the ROL itself.

Diagnostic Sentences. Part I of the ROL also contains several diagnostic variations of the simple sentence types in the Levels Sentences that include:

- Imperative sentences,
- Questions,
- Negative sentences,
- Preposed phrases,
- Relative clauses, and
- Adverbial clauses.

There are 82 additional Diagnostic Sentences in Part I of the ROL which are not all inclusive but provide teachers a broader way of exploring a child's language beyond the Levels Sentences. They are arranged hierarchically according to difficulty and are presented in the same manner as the Levels Sentences.

Clay et al. (1983) provide guidelines for analyzing children's oral language using their responses to the Levels Sentences and for applying information gleaned from the Diagnostic Sentences to the development of classroom instruction. She cautioned:

> In general, children scoring below 13 [on the ROL] will so far have acquired only limited control over the structures of oral English. They will be likely to have difficulty in

> following all but the simplest form of instructions given by the teacher and in following a story read to the class. These children should be considered for special attention in oral language development. (p. 29)

To paraphrase Clay's summary of the use of the Record of Oral Language: Teachers who use the ROL to gather insights about children's control of basic language structures may observe the extent to which children are gaining control of a standard dialect in addition to the one they already control and will be able to develop their own applications of the findings to suit their particular needs. But, in Reading Recovery in the United States is this too much to assume?

Oral Language Assessment for ELL Children in the United States

Researchers have long expressed the importance of fluent, structured oral language in the development of a child's literacy and particularly in relation to how it influences cognitive growth and the ability to arrange symbols logically and to think abstractly (Bruner, 1983). Large numbers of ELL children enter public schools in the United States. They are tested once at the beginning of kindergarten or upon entry into school and generally classified as Limited English Proficient (LEP), Non-English Proficient (NEP) or Fully English Proficient (FEP). (This article focuses on those children classified by the school as LEP and NEP. But unlike the ROL, the typical standardized oral language assessment results are limited and provide scant information that can be used to design a program of oral language instruction that supports children's growth in literacy (Peregoy & Boyle, 1993).

Consequently, Reading Recovery teachers must often depend upon the labels ELL children have earned from a single test, kindergarten teachers' judgement, and whether or not they appear to understand spoken directions during the OS as the basis for evaluating their emergent literacy and initiating instruction in the program.

Many ELL children are among those identified by Reading Recovery teachers as the lowest in reading and writing on the OS and qualify for immediate intervention. Often these children speak a dialect of English at home or another language in their homes and communities and apart from when they are in school may not hear or use standard English. Conditions at school in the United States may tend to militate against language development for children from these backgrounds.

Different cultures have different rules for speaking at home, and traditional schooling does little to erase differences in their oral language (Clay, et al.,1983). These children are often reluctant to speak with adults, and a teacher is at a loss to know how to get them to talk, so she or he may talk two-thirds or more of the time and *lead all the way* (Mackay, 1973; Jamieson, 1977). Clay (1991) said:

> If the child's language development seems to be lagging it is misplaced sympathy to do his talking for him . . . . The child who does not like to talk with the teacher or who has some difficulty understanding what the teacher is saying may be a child at risk. Be strong minded about talking with a child with whom it is difficult to hold a conversation. The human reaction is not to spend much time talking to such children. The educator's reaction should be to create more opportunities for talking. (p. 69)

Because many first grade classrooms in the United States are overcrowded, ELL children may have limited opportunities to participate whenever oral language instruction in English is conducted. Moreover, teachers' social, verbal interactions and attempts to engage them in conversation differ markedly from their interactions with standard English-speaking children (Hanf-Buckley, 1992). These conditions are cited frequently to support the decision to enroll them in Reading Recovery immediately because it is generally accepted that:

1. Regardless of ELL children's oral language deficiencies they should enter the program immediately if they can understand enough English to follow the directions for completing the OS and they score in the lowest group of alternatively ranked children in a first grade class.

2. Hypothetically, the oral language context of Reading Recovery lessons in which an expert adult user of English models and engages ELL children one-to-one in a variety of language-based learning activities, and the material and activities she or he chooses for a particular child within the components of the lesson create what is necessary to accelerate these children's oral language and literacy.

3. Reading Recovery is not an ESL program.

Each of these positions is justifiable. In one recent study 75 percent of ELL children selected for Reading Recovery in California on the basis of only needing to understand the directions for the OS appeared to benefit immediately from working in the program and demonstrated accelerative learning (Kelly, Gomez-Valdez, Klein, & Neal, 1995). These researchers compared ELL children's rate of discontinuation from the program with that of English-only speakers (English) and Descubriendo La Lectura (Reading Recovery in Spanish / DLL) and showed almost identical percentages: 75 percent, 74 percent, and 78 percent respectively.

In this study, comparisons were made on the various tests of the OS, but oral language as a variable was not identified or treated. Asked how they accounted for such even results across the language groups, the authors repeated the generally accepted hypothesis: given the rich oral language context of Reading Recovery lessons in which an expert language user is modeling for and engaging the child in a variety of language use, Reading Recovery serves to accelerate a child's reading and writing development concomitantly with acceleration in oral language competence. This hypothesis needs to be tested and research expanded in the United States. Clay (1985) said:

> It seems oral language is used to facilitate progress in reading and writing but few if any activities are designed specifically to facilitate oral language control. Perhaps because language learning seems to be done so easily by many children in the majority culture we have forgotten to arrange for learning opportunities to learn more about the use of the language for talking. (p. 33)

Interrelating Oral Language Development with Reading and Writing Across Reading Recovery Lessons: Some Personal Observations, Questions, and Modifications

Thoreau (1927) stated, "As the least drop of wine tinges the whole goblet, so the least particle of truth colors our whole life. It is never isolated, or simply added as treasure to our stock. When any real progress is made, we unlearn and learn anew what we thought we knew before." One particle of truth colors my whole career teaching children and adults who speak a dialect of English or English as a second language to read and write in English or Spanish, training teachers to do the same and to provide more effective instruction for those who will either drop out of school or be pushed out because of basic literacy difficulties.

The truth is oral language is primary, interrelated with written language and it is the basis of verbal thought, social communication, and the complexities of reading and writing (Chomsky, 1972; Huey, 1908; Loban, 1963, 1976; Monroe, 1965; Purcell-Gates, 1991, 1992; Sulzby, 1985; Wells, 1981). Thanks to my work in Reading Recovery I have unlearned and learned anew what I thought I knew before.

My own observations of many Reading Recovery teachers working with ELL children in the United States support Mackay (1973) and Jamieson's (1977) research: teachers talk more than two-thirds of the time during a lesson and lead all the way. Single word or monosyllabic responses are routinely accepted without realizing the inhibiting effect this may have on a child's development in literacy. Attempts to clarify or expand children's oral language production are often weak and inconsistent and do not facilitate these children's learning by specifically linking what they can understand and say to what they read and write (Cambourne, 1988).

These observations may reflect personal experience or bias and, in the absence of empirical studies, should be viewed cautiously. But, Wells (1986) studied the social and verbal interactions between classroom teachers and children and concluded:

> Teachers are unaware of the manner in which they interact with children and even when they become so by recording themselves and then transcribing and analyzing the resulting tapes, they do not find it easy to change interactional strategies built up over many years. For like the proverbial centipede, when asked to think about how they talk with children, some teachers find they become so self-conscious that they can no longer interact in a natural manner at all. The reason for this, I suspect, is that under normal circumstances, the focus of our attention is not on the verbal and nonverbal messages through which we communicate our intentions, but rather on the intentions themselves in relation to the specific activity in which we and our co-participants are engaged. (pp. 90-91)

The intention in Reading Recovery to accelerate children's learning and discontinue them as soon as possible may not encourage teachers in this country to pay enough attention to more varied verbal interactions nor expand their use of flexible prompts particularly when they have not been trained to develop oral language in the way teachers in New Zealand have. Where oral language development has not been a strong component of Reading Recovery teachers' background and training, supervisory models and explicit work during inservice classes may be required to help them become more aware of their communication patterns with ELL children.

Some questions occurred to me during my training as a Reading Recovery teacher leader while working with three ELL children. Can a Reading Recovery teacher trained to pay *special attention* to ELL children's oral language development and *create more opportunities for talking* change the manner in which she or he interacts with these children socially and verbally and support accelerative learning without disrupting the lesson or the research related to the program? For ELL children in Reading Recovery in the United States, is there a need to administer Part I of Clay's ROL to some of these children prior to their entry to the program and to measure the development of their oral language over time? Could this specific assessment of oral language among ELL children provide insights beyond what their ability to understand simple directions on the OS offers?

My academic background in language development and second language acquisition, emergent literacy, teaching a foreign language, and personally having had to study and learn a second language on foreign soil attuned my ear to the differences among these children's oral language competencies during the OS, *roaming*, and their early lessons. At one point in each of their programs they became stalled, seemingly unable to read increasingly more difficult texts or write more varied stories despite the fact I was trying to apply *correct* Reading Recovery procedures and prompts in these children's lessons. Another cautionary note is needed here because in my ignorance and novitiate role I may well have been more focused on the details of Reading Recovery procedures and missed the importance of process as it relates to these children's learning. Nevertheless, not only did their learning not accelerate but they began to regress. I examined their lessons carefully, looked at myself and seriously considered what I needed to change about me as a teacher and what I needed to do to adapt the program to meet their needs (Clay, 1993).

After altering the levels of texts and shared writing activities with limited success I decided to modify my verbal interactions with these children and focused on oral language development as an interrelated aspect of their reading and writing. Without adding to the burden of my teaching I incorporated more opportunities for these children to talk in their Reading Recovery lessons each day by:

1. Encouraging them to repeat whole sentences instead of accepting one word answers or monosyllabic responses.

2. Having them tell me what they or we would be doing at each transitional point of the lesson. For example they would say, "I am going to write on the board now," instead of saying "write," "writing," or some such limited utterance.

3. Encouraging the child after reading each familiar text to talk about the meaning, retell the story, and repeat the patterned language structure used in the text in our conversation.

4. Selecting and introducing texts that contained different high frequency language and syntax that would specifically scaffold a particular child's reading and writing development and by focusing heavily on meaning and structure as well as visual prompts and cues.

5. Using one of the familiar texts as a source of developing the child's daily story conversation and focusing on a specific sentence structure with the child to write a story based on this structure. After the child completed writing the story I repeated the structure and used it as a kernel sentence and substituted a simple meaning statement in conjunction with it. For example, if the child wrote, "I am going to the park today." I would not only ask him or her to reread the story but afterwards say, "Yes, we can say, 'I am going to the park today or I am going to school today, or I am going home today.'" The child was asked to repeat each patterned substitution.

6. Asking the children to not just do the reassembly of the cut-up story at home but to bring it back in the envelope with the books they took home each evening. Before fluency writing I asked the children to quickly reassemble the story on the desk and read it.

7. Selecting the new book within lessons based on language they controlled or partially controlled which reinforced or strengthened these sentence structures.

8. By focusing on meaning, planting the targeted structure of language in their ear during the introduction of the new text, modeling for the child the language of the book and asking the child to read it and return to the text for a second reading "to get a flow of words and a real feel for the story" (Clay, 1993, p. 38).

At the end of this first year I made several observations:

1. Since I was aware of these children's oral language differences and the effects they were having on reading and writing in their program, it seemed natural and logical to interrelate oral language development across the lesson.

2. The length of the lesson expanded, but by not holding these children accountable for using structured language I was neglecting an important aspect of their development in literacy. The additional time allotted to the lesson may reflect my own ineptitude and warrants more carefully designed inquiry because some ELL results in other sites show comparability with the general population without adding time to the lesson (Kelly, et.al., 1995). More information is needed because there may be a variance between those ELL children who enter the program as LEP as opposed to NEP.

3. As children's control over basic sentence structures in oral language improved, so did their fluency and comprehension of the stories we read.

4. As the children used these structures in their writing they appeared to gain increased control over them in their oral expression and they began to accelerate their learning.

5. Each developed a self-extending system. All three ELL children were discontinued, though at different levels and at different points in their program.

During my field year I worked with three more ELL children. I supplemented the Observational Survey with Clay's ROL and the following two informal oral language measures at the start and finish of their programs.

1. During *roaming* I laminated pictures and asked the children to tell me a story about each one. I tape recorded these stories and responses to my questions during the narration then analyzed their expressive and receptive language level using the SOLOM (Parker, Dolson, & Gold, 1985).
2. I also asked the children to draw a picture about something we had read in *roaming* they particularly liked. Then I asked them to tell me about their drawing and I tape recorded and analyzed their oral language production using the SOLOM.

At the beginning of the program, two of the children scored less than 13 on the ROL and one scored 13, all three children scored between 5-11 (Phase I) on the SOLOM (NEP). I created the same opportunities for the children to talk more during the lesson that I established with the three ELL children I worked with during my training year.

The three children I worked with in my field year discontinued earlier than those I worked with in my training last year. All three successfully repeated 28-35 sentences from the Levels section of the ROL. They scored in the upper range of LEP between 19-24 (Phase III) at discontinuation (Gentile, 1995).

This work is preliminary, exploratory, and suggestive. No definitive conclusions can or should be made pending additional study and well designed investigations. Carefully controlled studies might generate more powerful instruction early in a child's program, but these initial efforts raise some interesting implications for further research and practice.

Implications for Further Research

Since reading and writing are derivatives of oral language, could it be that differences in ELL children's oral language development may account for some of these children's ability to accelerate their literacy learning? What effect might this have on the success and cost-benefit ratio of the program? On a similar note, would it be more cost effective and efficient to give some ELL children (those classified as NEP) intense oral language instruction first, then pick them up in the second round instead of placing them in the program immediately?

If oral language competency were identified and given special attention in a consistent way throughout the lesson, would more ELL children show accelerative learning and successfully complete the program? Absent of any adjustments to identify oral language differences and create opportunities for these children to talk more and relate what they say with what they read and write, might some of these children lack the foundation in language development to work effectively in the program early or make accelerated gains within the 12-18 weeks taken by the average child in the program?

These questions cast no aspersion on ELL children's cognitive ability, imply oral language differences preclude their entry into the program, nor that Reading Recovery becomes an ESL program when we identify and work to provide more opportunities to strengthen oral language in the context of their lessons. Rather, it may highlight what needs to be done about these children's oral language development in kindergarten and first grade.

When oral language assessment for ELL children in the United States is not included in Reading Recovery, might this inadvertently send the wrong message to teachers, i. e., since the Observational Survey does not contain oral language assessment and oral language is not tested, it is not assigned specific importance in the program?

Clay (1985) said:

> Educators need to consider the recommendation that, because we know where we are going in early reading and writing and because teachers are doing a good job in this area, there is reason to pay more attention to oral language development particularly for children who enter school with less than average attainment in this area.

In New Zealand, studies confirm ELL children in Reading Recovery who successfully complete the program continue to develop their literacy (Clay, 1993). In his classic longitudinal study of kindergarten children over a thirteen year period from ages 5-18, Loban (1963) found those students in sixth grade who scored in the highest quartile of reading and writing were the same ones who scored highest on measures of oral language in the primary grades. He found the opposite to be true as well. Students who scored lowest in reading and writing in the sixth grade were the same who had scored in the lowest quartile in oral language in the primary grades. But, no such longitudinal study has been made of ELL children in Reading Recovery in this country.

When ELL children successfully complete Reading Recovery, longitudinal studies need to be conducted to examine the relationship of their oral language development to their continued growth in literacy across the primary grades. What differences are there in these children's oral language, their ability to read and write, and their continued success in school?

Finally, the social and verbal interactions between teachers and these children across their lessons need to be studied. Are there differences in the way teachers interact with standard English-speaking children and ELL children in Reading Recovery? What differences are there between teachers' verbal exchanges, expectations, time spent talking, attention to oral language development, and the selection and management of materials and activities for ELL children who successfully complete the program and those who do not?

According to Clay (1993), acceleration is the outcome of sound teaching. She notes:

> As the child gains control of the various components of the reading process the teacher who is observing sensitively begins to realize that a faster pace up through text difficulty levels is possible. However for some children and some teachers this does not seem to happen. In this case, there is only one position to take: The program is not or has not been, appropriately adapted to the child's needs . . . some aspect of the teacher's teaching or some aspect of the reading process has not received attention. (p. 56)

Given the disparity between many ELL children's oral language development at home and in school in the United States and in light of Clay's admonitions:

- How can a Reading Recovery teacher's sensitive observation be complete without any assessment of ELL children's oral language competencies in standard English?
- How can a program be appropriately adapted to the needs of some ELL (LEP, NEP) children without the teacher paying special attention to the role of oral language development in literacy in Reading Recovery?

This article addresses these and other significant issues in Reading Recovery in California where a majority of the nations' second language learners reside, where the state ranks next to last in the nations' elementary school children's literacy, where one in four children lives in poverty and the socioeconomic differences among teachers and children are widespread, and where teachers work in the most crowded classrooms in the country and can face classes represented by 12 or more languages.

References

Au, K.H., & Mason, J.M. (1981). Social organizational factors in learning to read: The balance of rights hypothesis. *Reading Research Quarterly, 17*, 115-152.

Bruner, J. (1983). *Child's talk: Learning to use language*. London: W. W. Norton.

Burt, M., Dulay, H., & Hernandez-Chavez, E. (1975). *Bilingual syntax measure*. Orlando: Harcourt Brace Javanovich.

Cambourne, B. (1988). *The whole story: Natural learning and the acquisition of literacy in the classroom*. Richmond Hill, Ontario, Canada: Scholastic-TAB.

Cazden, C.B. (1988). *Classroom discourse: The language of teaching and learning*. Portsmouth, NH: Heinemann.

Chomsky, C. (1972). Stages in language development. *Harvard Educational Review, 42*, 1-33.

Clay, M.M. (1985). Engaging with the school system: A study of interactions in new entrant classrooms. *Journal of Educational Studies, 20*, 20-38.

Clay, M.M. (1991). *Becoming literate: The construction of inner control*. Portsmouth, NH: Heinemann.

Clay, M.M. (1993). *Reading Recovery: A guidebook for teachers in training*. Portsmouth, NH: Heinemann.

Clay, M.M., Gill, M., Glynn, T., McNaughton, T., & Salmon, K. (1983). *Record of oral language and biks and gutches*. Portsmouth, NH: Heinemann.

Duncan, S.E., & DeAvila, E. (1977). *Language assessment scales*. Larkspur, CA: DeAvila, Duncan, & Associates.

Enright, D.S. & McClusky, M.L. (1988). *Integrating English: Developing English language and literacy in the multilingual classroom*. Reading, MA: Addison Wesley.

Gentile, L.M. (1995, July 6). *Oral Language: Assessment and direct instruction in Reading Recovery in the United States*. Research paper presented at Annual International Reading Recovery Institute, Palm Springs: CA.

Hanf-Buckley, M. (1992). Focus on research: We listen a book a day; we speak a book a week: Learning from Walter Loban. *Language Arts, 69*, 622-626.

Herbert, C.F. (1977). *Basic inventory of natural language*. San Bernardino, CA: CHECpoint Systems.

Huey, E.B. (1908). *The psychology and pedagogy of reading*. New York: MacMillan.

Jackson, S.I. (1980). Analysis of procedures and summary statistics of the language data. In B.J. Mace-Matluck (Ed.), *A longitudinal study of the oral language development of Texas bilingual children (Spanish-English). Findings from the first year.* Austin: Southwest Educational Development Laboratory.

Jamieson, P.A.B. (1977). *Adult-child talk*. In G. MacDonald (Ed.), Early childhood education conference. Massey University, Wellington, NZ.

Kelly, P.R., Gomez-Valdez, C., Klein, A., & Neal, J. (1995, April 20). *Progress of first and second language learners in an early intervention program.* Research paper presented at Annual American Educational Research Association Conference. San Francisco.

Loban W. (1963). *The language of elementary school children* (NCTE Research rep. No. 1). Urbana, IL: National Council of Teachers of English.

Loban, W. (1976). *Language and development: Kindergarten through grade twelve* (NCTE Research Report No. 18). Urbana, IL: National Council of Teachers of English.

Mace-Matluck, B.J. (1981). General characteristics of the children's language use in three environments. In B.J. Mace-Matluck (Ed.), *A longitudinal study of the oral language development of Texas bilingual children (Spanish-English): Findings from the second year.* Austin: Southwest Educational Development Laboratory.

Mackay, R. (1973). Conceptions of children and models of socialization. In H. Dreitzel (Ed.). *Recent Sociology, 5*. London: Macmillan.

McLaughlin, B. (1985). *Second language acquisition in childhood* (Vol 2). Hillsdale, NJ: Lawrence Erlbaum.

Monroe, M. (1965). Necessary preschool experiences for comprehending reading. *Reading and inquiry. International Reading Association proceedings, 10*. Newark, DE: International Reading Association, 45-46.

Parker, D., Dolson, D., & Gold, N. (1985). *Student oral language observational matrix*. Sacramento: California State Department of Education.

Peregoy, S., & Boyle, O. (1993). *Reading, writing, & learning in ESL*. New York: Longman.

Purcell-Gates, V. (1991). Ability of well-read kindergartners to decontextualize/recontextualize experience into a written-narrative register. *Language and Education, 5*, 177-188.

Purcell-Gates, V. (1992). Roots of response. *Journal of Narrative and Life History, 2*, 151-162.

Renwick, M. (1984). *To school at five*. Wellington, NZ: Council for Educational Research.

Sulzby, E. (1985). Children's emergent abilities to read favorite storybooks: A developmental study. *Reading Research Quarterly, 20*, 458-481.

Thoreau, H.D. (1927). *The heart of Thoreau's journals*. Boston/New York: Houghton Mifflin.

Wells, G. (1981). *The meaning makers: Children learning language and using language to learn*. Portsmouth, NH: Heinemann.

Wells, G. (1986) The language-experience of five-year old children. In J. Cook-Gumperz (Ed.), *The social construction of literacy*. London: Cambridge University Press.

"BUT I JUST WANT TO TEACH REGULAR KIDS!" UNDERSTANDING PRESERVICE TEACHERS' BELIEFS ABOUT TEACHING CHILDREN EXPERIENCING DIFFICULTY LEARNING TO READ

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"BUT I JUST WANT TO TEACH REGULAR KIDS!" THIS LAMENT, EXPRESSED BY one of our preservice teachers, reflects the thinking of many prospective educators as they enter the teaching profession. Additionally, future teachers' expectations of themselves and their students are high, idealistic, and include images of *regular* kids who are hungry for knowledge and filled with enthusiasm for learning (Bird, Anderson, Sullivan, & Swidler, 1993). This optimism about children and teaching seems to stem from the beliefs that preservice teachers have developed prior to enrolling in teacher preparation programs (Kagan, 1992). However, when prospective teachers are faced with the reality of working with children experiencing difficulty learning to read and write, they are challenged to confront these previously held beliefs (Cole & Knowles, 1993; Roskos & Walker, 1993).

In a undergraduate methods course, *Corrective Reading for the Classroom Teacher*, elementary education majors are given weekly opportunities to examine their beliefs as they tutor young children who have been identified as being at risk of failing to learn to read. Over the years, we have often seen our students struggle with the mismatch between their expectations and experience as they participate in the practicum component of the course. We have observed what Cole and Knowles (1993) referred to as shattered images that occur when preservice teachers experience a clash between what they thought literacy teaching would be like and what happens when children do not act, respond, or learn as their tutors expected.

We believe that part of the disillusionment our students experience is embedded in the deeply rooted beliefs about children and literacy learning that they bring with them to the course. As instructors, we consider it essential to examine preservice teachers' knowledge and beliefs about children who are at risk of failing to learn to read and what can be done to help them so that we can provide our students with experiences and activities to challenge their thinking about literacy learning and teaching.

The purpose of this study is to examine preservice teachers' beliefs about teaching children at risk of failing to learn to read. As such, our data collection was guided by the research questions: Upon entering a literacy practicum experience, what prior knowledge and beliefs do preservice teachers have about (a) why some children experience difficulty learning to read, and (b) what can be done to help children who are at risk of failing to learn to read?

Review of Related Literature

Researchers have described preservice teachers' beliefs and preconceptions about children and teaching as they enter into field experiences such as practica and student teaching. Kagan (1992) reviewed studies examining professional growth among preservice and beginning teachers, and the role of preexisting beliefs and images at early points in their teacher preparation programs. In this summary, Kagan noted that preservice teachers tend to draw upon their own prior experiences in classrooms as pupils and from information they *just know*, where a focus on self seemingly drives their beliefs. Likewise, Roskos and Walker (1993) indicated that preservice teachers' beliefs about children who are experiencing difficulty learning to read are largely based on their subjective knowledge as pupils in school, with a heavy emphasis on self. Roskos and Walker stated that prospective teachers' beliefs and knowledge about reading and young readers fell "more into the realm of folk knowledge about reading pedagogy than professional knowledge" (p. 332). Buchmann (cited in Bird, et al., 1993) described "private beliefs that preservice teachers have about schooling that are based on their own extensive experiences as students and also upon *folkways* of schooling" (p. 265).

Additionally, it appears the beliefs and knowledge that preservice teachers bring with them to university teacher preparation programs are idealized notions of teaching, learning, and children. An excerpted narrative account from a preservice teacher's journal (Cole & Knowles, 1993, p. 461) illustrates one student's contrived images and expectations of herself as a teacher:

> As I envision myself as teacher, I see myself standing in front of the classroom where the seats are arranged in a semi-circle allowing students a clear vision of the board, and discussing with students the lesson I had prepared for the day. I see myself using plenty of visual aids, writing important points on the board, repeating myself several times, and waiting to receive responses or questions from the class. The learning atmosphere is created by students themselves, since they are the ones who need a pleasing atmosphere in which to learn and study. It is bright but not distracting, cozy enough so that the students do not feel that they are in a strange place, and intellectually stimulating so that they are always being exposed to something *educational*.

Cole and Knowles concluded that, "for many preservice teachers, re-entry to schools delivers a mild to moderate shock when they find their images of students, teachers, and schools are inappropriate" (p. 462).

Rust (1994) found that students' unrealistic views often hold fast even as they face their first year of classroom teaching. Her study that followed the experiences of two first-year teachers described the incongruity between what the teachers expected and what they actually experienced in the classroom and the dissonance between previously held beliefs and reality.

If preservice and novice teachers do indeed have unrealistic beliefs about teaching in general, how do their beliefs impact their teaching of at-risk learners, in particular? One possibility may be a reluctance on the part of preservice teachers to see at-risk learners, in this case children who are experiencing difficulty learning to read, as their responsibility. Gomez (1994) examined preservice teachers' perspectives on teaching *other people's children*. Her research suggested that if preservice teachers were given a choice, they would not choose to teach, nor are they prepared to teach low-achieving children. Much of Gomez's work is framed in terms of prospective teachers' views of children of races, ethnicities, and economic backgrounds different from their own. However, we believe that her call for teachers who are prepared to meet the needs of diverse learners applies similarly to meeting the needs of at-risk children who are struggling in school and failing at literacy learning. This is consistent with the Holmes Group report (Tomorrow's Schools, 1993), which calls for making teaching and learning for understanding available for everybody's children.

Finally, since preservice teachers soon become inservice teachers, it is important to examine recent research that focuses upon the willingness of practicing teachers to accept the responsibility of teaching *everybody's children*. Allington (1994) and Allington and Walmsley (1995) identified a connection between practicing teachers' beliefs about at-risk learners and teachers' acceptance of that responsibility for teaching those children. Allington traced the history of special programs for children who find reading difficult and compared the labels that describe at-risk learners with various programs implemented over the years to paint a picture of what he refers to as *warehousing* children. Allington called for reconceptualizing special programs whereby "each teacher would be responsible for the literacy development specifically and the academic development generally of all children enrolled in the class" (p. 110). Allington and Walmsley asserted that inservice teachers often do not see at-risk children as their responsibility and that even though there have been efforts to move toward a more inclusionary focus, practicing teachers still believe that children who are experiencing difficulty learning to read should be sent to special programs and special teachers.

Methods and Procedures

Theoretical Framework

Constructivism and phenomenology are the frameworks that underpinned this research and guided the data collection, analysis, and interpretation in this study. Constructivism allowed access to preservice teachers' multiple, intangible mental constructions, such as their previously held beliefs and knowledge, which are socially and experientially based (Guba & Lincoln, 1994). Phenomenology allowed an understanding of the nature of the preservice teachers' beliefs and knowledge from their emic perspectives (Patton, 1990). These theoretical frameworks were revisited as the findings were interpreted to inform our developing understanding of the preservice teachers' expressed beliefs, which seemingly arose from their own particular viewpoints and experiences.

Participants

Over a period of three semesters, all 67 students enrolled in an undergraduate reading methods course, *Corrective Reading for the Classroom Teacher*, at a large midwestern university participated in this study. The 60 female and 7 male participants were junior or senior year elementary education majors. They had already completed a prerequisite literacy methods course that focused on theory and practice related to literacy teaching in the elementary school, but they had no prior literacy teaching experience. The majority of the students were scheduled for student teaching in one of the following two semesters. The course is designed to provide preservice teachers with classroom discussion and practicum experiences in teaching reading and writing to children experiencing mild to moderate reading difficulties. The undergraduates each tutor one child per week in the university's reading clinic setting. During the classroom sessions, the preservice teachers learn assessment procedures and instructional strategies that are then applied in the tutoring practicum.

Research Design and Data Collection

Qualitative methodology was used for this study as we examined the phenomena of the students' constructed knowledge and beliefs about at-risk literacy learners (Patton, 1990). The design included data and investigator triangulation (Denzin, cited in Patton, 1990). Data triangulation was achieved through examination of multiple data sources and investigator triangulation was accomplished as the researchers met regularly to discuss and compare findings and viewpoints, as well as to problem-solve design and data collection challenges as they occurred.

To ascertain students' beliefs about children who are at risk of failing to learn to read, for three consecutive semesters an open-ended questionnaire was administered on the first day of class. Before any teaching had taken place and with no indication from the course professor that there were *right* answers, the students were asked to write their responses to the following questions: (a) Why do some children experience difficulty learning to read? and (b) What can be done to help children who are at risk of failing to learn to read? Additionally, formal interviews were conducted before the second week of the course with key informants purposively selected (Miles & Huberman, 1994; Patton, 1990) on the basis of their willingness to share impressions and information with the researchers. The key informants were identified by the course instructor as students who were actively engaged, perceptive participants in the course and able to articulate their responses and reactions to their experiences. These students provided individual voices of the participants and opportunities for clarification and better understanding of preservice teachers' perspectives and beliefs about at-risk literacy learners.

Data Analysis

The undergraduates' responses to the questionnaires were analyzed using within- and cross-case analysis (Patton, 1990). First, each student's written responses were analyzed as single cases, to identify themes or patterns within them. The researchers worked individually and then met to compare and discuss each team member's coding of the responses. From this process, emerging categories were generated that were then used to reanalyze and continue analyzing the data. Second, the within-case analysis was extended by conducting a cross-case analysis of all undergraduate students' responses. In the cross-case analysis, the researchers searched for patterns or validated patterns that had emerged in the within-case analysis. We looked across all data to identify similar as well as discrepant cases (Patton, 1990). Finally, overall findings were generated by synthesizing the within-case and cross-case analyses.

Students' responses during formal interviews were analyzed the same way as the written responses. First, they were analyzed as single cases, then similarities in their responses across cases were noted in a search for patterns or recurring themes.

Results and Discussion

The central theme that emerged from the preservice teachers' responses to the two questions asked was that they assigned responsibility for causes of reading problems and the responsibility for helping children who experience difficulty learning to read to *someone else*. Instructional or school-related factors were not cited as reasons children experience difficulty learning to read, nor did preservice teachers believe that it was a classroom teacher's responsibility to provide help for these students. Instead, the undergraduates *assigned responsibility for* reading problems to parents and the home environment they created for their children, or to the children themselves, neither of which fell within the realm of a teacher's responsibility. When preservice teachers were asked what they believed should be done to help these children, they *assigned responsibility to* someone else, a person outside of the classroom such as a Reading Recovery teacher, reading specialist, or parents. Student responses to each of the questions were examined to demonstrate how these prospective classroom teachers absolved themselves of responsibilities for teaching children with reading problems.

Assigning Responsibility for Reading Problems

When the preservice teachers answered the question, "Why do some children experience difficulty learning to read?," their responses indicated two primary sources of responsibility: the child and the child's parents.

The child. The most frequently offered explanation centered on beliefs that something was wrong with the child. Students cited cognitive, neurological, emotional, and physiological problems such as hearing loss, vision problems, and malnutrition. Diane believed, "Some children, I'm sure have neurological impediments that made it harder to learn to read." Jim listed the following reasons: "Visual difficulties, hearing difficulties, and other physical difficulties." Sara thought, "Some children may be undernourished. Some children may just learn at a slower rate; their minds may not process everything." Tara said, "Some children may not be ready, may not be able to [read]—brain damage, etc."

Other students offered explanations such as learning disabilities, ADD, dyslexia, developmental delays, and low self-esteem. For instance, Carla responded, "There are several reasons why some children experience difficulty learning to read. These include lack of interest, lack of attention, and learning disabilities. Learning disabilities should be identified and dealt with." Julie added, "... it may be a learning disability which affects their development (dyslexia, etc.)." Molly and Linda also pointed to dyslexia. "There are also obviously cases of dyslexia, etc. that may prove to be road blocks for some children until these situations are improved," Molly wrote. Linda stated, "Some children may experience difficulty because they have an eye problem or may be dyslexic. Students need to be tested for many different problems if their reading difficulty is extreme." Similarly, Tanya related, "Some children may have an underlying learning disability that teachers need to be aware of." Brian, too, said, ". . . having learning disabilities or handicaps which cause them not to be able to keep up with other students. When these problems go undetected students fall behind." Alexa stressed, "It may be an attention span disorder since reading requires paying attention to every word and meaning, or it could be that a child has a vision problem or trouble recognizing words again." Misty added, "Some children may be learning disabled and just take longer to learn. All students have their own rate at which they develop." Katherine stated, "Children could have a mild learning disability that shows up only in reading. Children may have a lack of concentration and get frustrated easily. Children may have low self-esteem or confidence in their abilities to read." Lack of confidence was also mentioned by Tanya, "The children may also have a hard time because they don't want to learn to read or they have had a bad experience with trying to read (i.e., reading aloud in groups)." It is interesting to note that while students freely labeled the causes of problems, they rarely offered explanations or definitions for the terms they used to describe them.

A final, but much less frequently offered cluster of responses dealt with the belief that some children experience problems learning to read because they cannot deal effectively with print. Examples of these difficulties included excessive time needed to associate letters with sounds, trouble recognizing words, trouble understanding written code, and not having sufficient practice. Diane noted, "Other children might be easily frustrated when they have difficulties understanding the written codes, which might add to their difficulties in learning language." Misty pointed out, "Others just take longer to associate letters with sounds. After learning basic rules, there are always exceptions to the rule that must be memorized." David reasoned, "Some children have difficulty because they do not understand sound-letter relationships, phonic rules, or other rules that would help a child learn to read." Stephanie shared, "Others may have a hard time relating the sound to the letter. Still others, like me, could read the words, but have a hard time with comprehending the message." Abby thought the difficulties occurred because, "Something is not making meaning for them. A letter, a word, phrase, or all of print has meaning—I think some kids lose the ability to understand that and therefore have problems reading."

The parents. The second most frequently offered explanation for why children experience difficulty learning to read reflected preservice teachers' beliefs that parents and the home environment they create are responsible for children's reading problems. A lack of early or adequate literacy experiences, parents who do not or cannot read, excessive television viewing, poverty, and dysfunctional families were cited as related and contributing factors. Sara's response illustrates her beliefs about the impact of home on a child's ability to learn to read. "I think some children have trouble because they were not read to at a young age or at all. They also may have had a rough experience growing up and were worrying about something else." Kim, too, said, "I think the main problems come from a home situation." Mark and Bill pointed specifically to the parents' role in their children's failure to succeed in reading. Mark said, "Perhaps home environment. Probably the parents can't read too well. Maybe the parents show no interest at all in the child's education." Bill believed, "Some children aren't given enough attention in their preschool years. Some parents either neglect or do not have the time to talk to and read to their children." Tonya reasoned, "I think that some children have difficulty learning to read because they are not exposed to books early on. Their parents don't read to them or don't know how to read either. I also think that if children do have books available but are not told or helped or even read to by someone [a child] will not pick up a book and look at it."

Julie's response supported the notion that a difficult family situation can contribute to reading problems. "Some may not have been exposed to reading early on. Others may have encountered financial problems which may have stood in the way of the child's literacy development (i.e., couldn't afford books, parents worked night and day, etc.)."

Likewise, Nancy commented, "Each child comes from a separate household and has had different experiences. Some children grow up in families where parents do not share in reading activities with them. Some children do not have books."

In addition to citing home situations, some students also pointed to activities that might take children away from reading, such as excessive television viewing. Donna pointed out, "I think too often it seems easier to let a child sit in front of the TV or play video games than to take them to the library to get them books." Mattie agreed, "I also believe that children need to have less television time and more quality time reading. I feel that watching the television is filling our children's time and they don't make time for quality reading." Mark wrote, "Maybe the child is too interested in TV, computer and video games, or too involved in other activities."

For these undergraduates, inadequate parenting, resulting in inadequate early literacy experiences, is the cause of children's reading difficulties. Although Cathy also ascribed to this position, she approached the subject by explaining what she considers the effects of more positive family environments and experiences, including reading to children early in life, older sibling literary role models, and literacy materials. "Some children might experience difficulty learning to read because of their socioeconomic backgrounds, family backgrounds, family structure, etc. Some families value the importance of reading. In these families, children are probably read to daily at a very early age (even infancy). Some children have older brothers and sisters who read, and they see their siblings as sort of role models. Some families purchase a great amount of books, computer programs, or videos that encourage their children to learn to read."

Assigning Responsibility for Instruction

In response to the question, "What can be done to help children who are at risk of failing to learn to read?," the majority of preservice teachers assigned responsibility to someone else. Those cited most often were parents or specialists who could work with students outside of the classroom.

Parental responsibility. First of all, the undergraduates stated that they believed the teacher should work with parents, who in turn should read to their children and support their children's literacy efforts. Kim, Julie, and Dana spoke of the need for parental involvement in the literacy development of their children. Kim stated, "For a child at risk it would be very important for the teacher to work with his or her parents to ensure the child will not fail." Julie reasoned, "Conferences with parents could make them more aware of the problem and parents and teachers could work together to help solve it." Dana said, "The teacher can work with the parents on making sure books are read at home each day for some added practice with the parent or guardian as the overseer."

Diane's response links assigning responsibility to parents to assigning responsibility to specialists, such as tutors. "I think that working closely with the parents and family and other reading specialists will increase the likelihood that an at-risk child will succeed in learning to read." Her allusion to *other reading specialists* was a sentiment that was evident across many of the preservice teachers' responses. They agreed some type of school-initiated intervention held the key to helping these children.

Specialist responsibility. The second and overwhelming response to this question was that children experiencing difficulty learning to read should be tutored by special teachers in some type of school-initiated intervention. This, they said, might take the form of assistance from a reading specialist or participation in other kinds of individual instructional programs that occurred outside of the classroom. Misty remarked, "I have observed the Reading Recovery program and noticed what this program can do for children who are at risk of failing to learn to read." Alexa also recommended Reading Recovery. "Programs like Reading Recovery which focus on what the child can do and builds from there are the most helpful." Dana wrote, "These students can be tutored inside or out of school." Amy's response captured the essence of the majority of explanations. "If a child is at risk of failing to learn to read then individual one-on-one tutoring is essential. Given the opportunity to have individual reading help will greatly increase the child's chances to learn to read." Cathy agreed, "I feel there needs to be a program to help children who are at risk of failing to learn to read in every school system. I also believe that it is important to get these at-risk children into such a program as early as possible (first and second grade)." Amy supported all of the above students' comments, "Tutoring individually will take away the embarrassment the child feels and will also give the child more opportunities."

In sum, the central theme that emerged from the analysis of the preservice teachers' beliefs was that of *assigning responsibility* both for the cause of children's problems and for the efforts to help them. Often the responses indicated that reading problems were inherent to the child and the preservice teachers labeled those children accordingly. The undergraduates also cited non-reading factors that caused problems for children.

In the responses of the future classroom teachers, accepting responsibility for at-risk literacy learners rather than assigning it to someone else, did not appear in the data as a belief embraced by this group. The classroom teacher was rarely mentioned as a source of help or someone who, at least, shared responsibility for teaching those children experiencing difficulty learning to read. Special programs and special teachers were viewed as sources outside of the classroom that could solve the dilemma of how to help a struggling child learn to read. It was noted that the preservice teachers seldom considered the possibility of teaching effective strategies to children to help them gain independence in dealing with reading tasks. These findings echo those of Gomez (1994) who reported that prospective teachers view children's learning problems as "consequences of children's outside-of-school lives; beyond the purview of teachers, school, and schooling" (p. 321).

Educational Implications

This study has far-reaching implications for teacher education because it relates to an already common concern that practicing teachers abrogate responsibility for teaching the hardest-to-teach children to specialist teachers. Research conducted by Allington and Walmsley

(1995) warns us that many teachers operate from "it can't be done" or "it isn't my job" perspectives, believing that the children's abilities make it impossible for them to succeed with regular classroom instruction or that only specialist teachers would know what to do.

If preservice teachers harbor these beliefs before they even complete teacher education programs, it is unlikely that they will begin to accept responsibilities for teaching at-risk learners when assuming the role of classroom teacher. It is imperative that teacher educators recognize future teachers' beliefs as they enter our classes and then provide experiences and activities that will inform them as they construct their understandings about teaching and learning. We need to afford prospective teachers opportunities to observe and participate in successful interventions for those children who experience difficulty learning to read and write. For example, at Purdue University, preservice teacher educators collaborated with the Reading Recovery faculty to infuse features of the Reading Recovery professional development model into their students' experiences. Specifically, they participated in behind-the-glass sessions where they engaged in reflective discussion as they observed their peers tutoring children in the clinic setting. Evidence from this collaborative research effort suggested the undergraduates discovered new ways to look at teaching and learning, the most significant of which was to view the child differently (Hopkins, Schmitt, Nierstheimer, Dixey, & Younts, 1995).

Placing more emphasis on assessing preservice teachers' beliefs and providing appropriate experiences in teacher education programs will help to ensure that prospective teachers develop "it *can* be done" and "it *is* my job" perspectives (Allington & Walmsley, 1995) about teaching children at risk of failing to learn to read.

References

Allington, R.L. (1994). What's special about special programs for children who find learning to read difficult? *Journal of Reading Behavior, 26*, 95-115.

Allington, R.L., & Walmsley, S.A. (1995). Redefining and reforming instructional support programs for at-risk students. In R.L. Allington & S.A. Walmsley (Eds.), *No quick fix: Rethinking literacy programs in America's schools* (pp. 19-44). New York: Teachers College Press and International Reading Association.

Bird, T., Anderson, L.M., Sullivan, B.A., & Swidler, S.A. (1993). Pedagogical balancing acts: Attempts to influence prospective teachers' beliefs. *Teaching and Teacher Education, 9*, 253-267.

Cole, A.L., & Knowles, J.G. (1993). Shattered images: Understanding expectations and realities of field experiences. *Teaching and Teacher Education, 9*, 457-471.

Gomez, M.L. (1994). Teacher education reform and prospective teachers' perspectives on teaching "other people's" children. *Teaching and Teacher Education, 10*, 319-334.

Guba, E.G., & Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.

Hopkins, C.J., Schmitt, M.C., Nierstheimer, S.L., Dixey, B.P., & Younts, T. (1995). Infusing features of the Reading Recovery professional development model into the experiences of preservice teachers. In K.A. Hinchman, D.J. Leu, & C.K. Kinzer (Eds.), *Perspectives on literacy research and methods* (pp. 349-357). Chicago: National Reading Conference.

Kagan, D.M. (1992). Professional growth among preservice and beginning teachers. *Review of Educational Research, 62*, 129-169.

Miles, M. B., & Huberman, A.M. (1994). *Qualitative data analysis.* Thousand Oaks, CA: Sage.

Patton, M.Q. (1990). *Qualitative evaluation and research methods.* Newbury Park, CA: Sage.

Roskos, K., & Walker, B. (1993). Preservice teachers' epistemology in the teaching of problem readers. In C.K. Kinzer & D.J. Leu (Eds.), *Examining central issues in literacy research, theory, and practice* (pp. 325-334). Chicago: National Reading Conference

Rust, F.O. (1994). The first year: It's not what they expected. *Teaching and Teacher Education, 10,* 205-217.

Tomorrow's schools: Principles for the designs of professional development schools. (1993). East Lansing, MI: The Holmes Group.

SUCCESS OF OLD ORDER AMISH CHILDREN IN A STRATEGY-ORIENTED PROGRAM FOR CHILDREN AT RISK OF FAILURE IN READING

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SINCE THE 1984-85 SCHOOL YEAR, TEACHERS IN SCHOOL SYSTEMS throughout Ohio have helped a high proportion of *at-risk* first grade children achieve in reading through successful implementation of the Reading Recovery program (Huck & Pinnell, 1984/1985; Lyons, Pinnell, McCarrier, Young, & DeFord, 1987; Lyons, Pinnell, Short, & Young, 1986; Pinnell, Fried, & Estice, 1990; Pinnell, Short, & Young, 1986). Reading Recovery teacher training sites are located throughout Ohio, the first state in the United States to implement a statewide Reading Recovery program. This article describes a study of the Reading Recovery program with an Old Order Amish population of first grade students from the East Holmes Local School District (EHLSD) in Holmes County, Ohio, who were taught by teachers from the Ashland University Reading Recovery training site. Given this particular population, this study examines the results of the implementation of a Reading Recovery program with culturally and linguistically diverse children.

Reading Recovery is an early intervention program developed in New Zealand by Marie M. Clay (Clay, 1979, 1985, 1993), a developmental child psychologist. The program is designed for the lowest achieving readers in the bottom 20 percent of first grade classrooms who are identified with an individually administered Observation Survey and by teacher recommendation. The daily, thirty-minute individual Reading Recovery lessons supplement regular classroom reading instruction and enable the vast majority of children to be discontinued from the program in a 12- to 20-week period by achieving reading performance comparable to their classroom average. Students who are successfully discontinued from the program are defined as having reached the average performance of their classroom or better (if the classroom average is lower than expected) and having developed a self-extending system that allows students to continue to grow in their reading ability through ongoing interactions with reading text in an effective classroom environment.

Rather than placing emphasis on mastery of isolated reading skills, Reading Recovery teachers assist students in developing a set of self-regulatory metacognitive reading abilities similar to those described by Brown (1985). The ultimate goal of the program is the development by the students of a strategy-oriented, self-extending system that enables them to continuously achieve at or above the average in reading of their classmates throughout their educational endeavors.

During the 1986-1987 school year, 23 teachers from 14 school systems in six counties were trained at the Ashland University Reading Recovery site. Six of these teachers were from elementary schools in the EHLSD which serviced the world's largest population of Amish children who attend public schools (Miller & Aguilar, 1984; Lifer, personal communication, 1988). This article will present an analysis of the progress of the Old Order Amish children in the Reading Recovery program. After highlighting several characteristics of the Old Order Amish subculture which might provide challenges to progress in learning to read standard English, statistical analyses will be used to address the following four research questions:

1. Do the Amish discontinued Reading Recovery students in the EHLSD achieve end-of-year mean scores on the Diagnostic Survey (Clay, 1979, 1985) (revised by Clay in 1993; name of instrument was changed to Observation Survey) that fall within the mean-band scores of the (a) Amish non-Reading Recovery first grade students from EHLSD, (b) non-Amish non-Reading Recovery first grade students from EHLSD, and (c) the Ashland University Reading Recovery site?

2. Do the non-Amish discontinued Reading Recovery students in the EHLSD achieve end-of-year mean scores on the Diagnostic [Observation] Survey that are located within the mean-band scores of the (a) Amish non-Reading Recovery first grade students from EHLSD, (b) non-Amish non-Reading Recovery first grade students from EHLSD, and (c) non-Reading Recovery first grade students throughout the Ashland University Reading Recovery site?

3. Is the mean number of lessons required to discontinue Amish students less than the mean number of lessons required to discontinue (a) non-Amish discontinued Reading Recovery students in the EHLSD and (b) the discontinued Reading Recovery students from the school systems located outside of Holmes County that are serviced by the Ashland University Reading Recovery site?

4. Does the proportion of Amish Reading Recovery students who are from EHLSD who are discontinued from the program differ from the proportion of non-Amish Reading Recovery students from EHLSD who were discontinued from the program?

Characteristics of the Old Order Amish Subculture

This section describes the characteristics of the Old Order Amish subculture. These characteristics distinguish the Old Order Amish from a new, more liberal sect of Amish that is a branch of the Mennonite faith.

A culture is comprised of several "patterns and products of learned behavior: etiquette, language, good habits, religious and moral beliefs, systems of knowledge, attitudes and values; as well as the material things and artifacts produced—the technology—of a group of people" (Havinghurst & Neugarten, 1975, p. 6). Because the environmental situation of Old Order Amish students is quite different from the characteristics of the dominant, non-Amish culture, these students are influenced by a subculture much like that defined by Wolfson (1976):

> Subcultures exist within the framework of a larger culture. Members of a subculture, although adhering to a greater or lesser extent to the values and social norms of the wider culture, also have their own values and norms, and they may differ in social structure and patterns from the main culture of which they form a part. (p. 121)

The Old Order Amish society exists as an anachronism in the space age. It gives a glimpse of what was abandoned when people left the farms a century ago (Barker, 1986; Wittmer, 1983). The following differences of the Amish subculture exist so the members can maintain a social isolation from the world of the *outsider*, can practice their religion, and achieve their goal of gaining eternal life. They avoid outsiders, or people who are not of the Old Order Amish faith, and their worldly ideas. The Amish may be willing to interact with the outsiders, or non-Amish, on what they see as an equal basis of limited bond (i.e., buyer or seller of goods). Beyond this, they desire limited contact with the world outside their society (Lee, 1984). Modern appliances, including television and radio, and technological advances which encourage contact with or require dependence on members outside their subculture are avoided. The dress of all members is plain and colorless reminding everyone that they are Amish (Ediger, 1980).

To maintain their individuality and isolation as a group, a German dialect similar to Yiddish is spoken in homes (Wittmer, 1983). Amish children score significantly lower on language portions of standardized tests suggesting that these problems may be due to language and cultural differences (Hostetler & Huntington, 1971). Once Amish students adjust to standard English and the school curriculum, their semantic development has been found to match comparison groups of suburban children and exceed the semantic development of black and white inner city children (Entwisle, 1969).

Researchers have shown the importance of language in a facilitative role to serve as a template for interpreting the printed word (Downing & Leong, 1982; Sticht & James, 1984). Therefore, some intervention must occur to help the Amish student develop confidence in speaking standard English before reading instruction begins. Model programs for Amish children which stress extensive language arts intervention, parent involvement in introducing preschoolers to standard

English at home, and other literacy events to assure transition to standard English have been recommended (Fishman, 1987; Logan, 1964; Parsons, 1983).

Formal education is important to the Amish because it will enable them to function in the non-Amish society. The Amish believe that all education should focus on knowledge and skills that can be put to practical use. Any other knowledge or skills are frivolous and unnecessary beyond that which can be used in their goal of living a simple life to practice their religion (Bontreger, 1969). Reading is important to the Amish because it enables them to read the Bible; math is important for household/farm management. Sciences and higher learning, however, are considered foolish, unnecessary, and sinful (Hostetler & Huntington, 1971).

The value Amish parents place on education and reading achievement should encourage these parents to express positive attitudes about academic achievement to Amish students. Parental attitudes toward reading were found to be an important influence on their children's own reading attitudes (Ransbury, 1973). When New Zealand groups of white, Samoan, and Maori children were compared, Clay (1976) found that Samoan children made better progress than Maori children in the initial stages of learning to read. The progress of the Samoan children was attributed to frequent experiences of parents reading to them from the Bible and observing the high value placed on reading and writing, and because of letters between parents and relatives in the home country. Reading the Bible with children has an equally high priority in the Amish society.

The Bible and some Amish monthly publications are found in Amish homes (Fishman, 1987; Miller & Aguilar, 1984). Beyond reading of the Bible to practice their religion, researchers found that most Amish adults do not read. Those who do read do so for practical purposes such as machine repair or to answer questions about farming (Miller & Aguilar, 1984). The fact that parents do not appear as wide readers could be detrimental to Amish children's view of the importance of reading. Also, their infrequent use of books may not provide the opportunity for them to teach their children implicit knowledge about book handling suggested by Logan (1964).

The Amish feel that eight years of schooling is sufficient to gain enough practical knowledge and skills for their style of living. The eight-year school career encourages some parents to place even more importance on their children's school work. During interviews conducted by the author, parents stated that their children must learn to read immediately so they can benefit completely from the eight years they have to learn the practical skills and knowledge they will need for future life. After many years of legal struggles, the United States Supreme Court ruled that compulsory, formal education beyond eighth grade would endanger the free exercise of the Amish religious beliefs. Some Amish families, however, choose to send their children to public school and allow them to attend high school (Wittmer, 1972).

Reaction to Change by the Amish Society

Change occurs so slowly in the Amish society that most outsiders do not realize that change is being slowly accomplished. The literal interpretation of the Bible and previously described behaviors aimed at isolation are the focus of most observers of this group; these characteristics have remained relatively constant. However, subtle change is occurring as described in the following examples of the Amish culture:

1. An increased emphasis is being placed on legal means by the federal and state government of regulating Amish behavior. The eight-year school attendance decision and refusal to pay social security taxes are two areas of regulation.

2. The Amish are increasing their use of technical medical services. They will buy medical services, and in some cases, very sophisticated services. For example, recently one Amish man

had a heart transplant. Another Amish man bought a hearing aid from the Ashland University Speech and Hearing Clinic.

The Amish can no longer be considered a farm-oriented society exclusively. Different kinds of work are being performed by members (e.g., carpentry, construction, and factory work). It should be noted, however, that even those who have non-farm work continue to farm on a small scale (Barker, 1986).

These changes may eventually require the Amish to allow their children to go beyond the study of the basic subjects. For example, jobs which involve technology will require understanding basic science principles, and courses which stress the legal structure of the outsiders' society may need to be studied.

Some sociologists predict that employment changes may cause a breakdown of the Amish society. Other researchers feel that stabilizing factors like large, close-knit families; strong convictions; personal relationships with other members of the congregation; hard work and thrift; and religious beliefs central to their simple, less complex way of life will maintain the Amish society (Ediger, 1980).

Amish beliefs and behavior have an impact on children's response to educational procedures and how teachers should interact with these children. When Amish attend public schools, they encounter positive results with non-Amish students. However, these same procedures are in direct opposition to many of the beliefs and practices of the Old Order Amish. Wittmer (1983) and Wittmer and Moser (1974) suggested that public school educators must be aware of the following issues when working with the Amish:

1. Promoting individuality, procedures to boost self-concept, and stressing pride in one's work should be avoided. The Amish feel they are members of a group and the group ethic prevails. Therefore, the competitive spirit should be avoided; competition works against the feeling of working for the group. Teachers should also be very selective with praise. "Praise is reserved for groups and not for individuals" (Wittmer & Moser, 1974, p. 182).
2. The Amish are a task-oriented, exact society. Work is a moral directive. One should work slowly and accurately. Therefore, speed should not be stressed or expected.
3. Although some change away from a farm-centered society has been noted, career exploration is not an interest for the Amish student. Units stressing career education may not be applicable in the Amish students' curriculum.
4. To maintain the isolation that is required by their religion, Amish students purposely keep their distance from non-Amish students in school. Encouraging friendships with outsiders should be avoided.
5. Advice and counseling by teachers about church or family matters may be avoided by Amish children, because parents may have warned children not to be swayed by the advice or interest of teachers or counselors in these matters.

Because the dominant subculture usually controls the school system, a hazardous situation which can inhibit learning occurs when students find that the school environment is foreign to the patterns and products of their subculture (Downing & Leong, 1982). Wittmer (1983), a professor of education who was born and raised in an Old Order Amish home, stated:

> I often joke about the fact that one entering a public school without knowledge of the Bobbsey twins or Mother Goose is in immediate danger of failure. But there is much truth to this. The American public schools have often been viewed ideally as one American institution where tolerance of individual difference is much in evidence. However, I can vouch that the contrary is more the norm. The goal is institutionalization and those who don't conform to the social norms and who refuse to be assimilated are in trouble. (p. 180)

Many Old Order Amish communities educate their children in their own parochial schools to avoid the discrepancies between their subculture and the dominant subculture that controls the school system. However, situations occur when parochial schools are not available. The Amish will support a public school education as long as it is rural in nature and does not depart much from the Amish life pattern (Keefer, 1969).

Definition of Terms

Reading Recovery Children — are children who received 60 or more lessons in the Reading Recovery program or who were discontinued from the program. Table 1 contains the number of students in the various groups analyzed in this study.

Discontinued Reading Recovery Children — are children who successfully completed the program and who were officially released during the year or who were identified as having met the criteria for discontinuation at the final testing in May (see Table 1).

Not Discontinued Reading Recovery Children — are those children who were not officially discontinued from the program for various reasons including: (a) the student moved from the school, (b) the student did not have time to complete a minimum of 60 lessons before the end of the school year, (c) the student was referred to another program such as special education, or (d) the student did not respond adequately to the program after a maximum of 20 weeks of instruction. Table 1 lists the number of students not discontinued for the various Reading Recovery groups.

Non-Reading Recovery Children — served as comparisons for the reading performance of the discontinued Reading Recovery groups. The non-Reading Recovery children were divided into three groups. The first groups consisted of Amish non-Reading Recovery children in the first grade classrooms in the East Holmes Local School District (EHLSD). The second group was composed of the non-Amish non-Reading Recovery children in first grade classrooms in the EHLSD. The third group consisted of the students in Groups 1 and 2 as defined plus a group of children randomly selected from the first grade classrooms from every school outside the EHLSD serviced by the Ashland University Reading Recovery site (see Table 1).

Testing

Assessment of the subjects' reading performances was accomplished by administering the Diagnostic Survey (Clay, 1979, 1985) (revised by Clay in 1993; name of instrument was changed to Observation Survey). The Diagnostic [Observation] Survey was designed to capture change during the emergent stages of reading and writing progress. This series of observational tasks includes six assessments. These assessments are:

1. *Letter Identification:* Children identify 54 different characters including upper and lower case letters and conventional, manuscript print for the letter *a* and g (range of scores: 0-54).
2. *Word Test:* Students read a list of 20 words drawn from the most frequently found words in basic beginning reading materials (range of scores: 0-20).
3. *Concepts About Print:* While the teacher reads a book aloud, students are tested on 24 significant concepts about printed language, for example, directionality and one-to-one matching (range of scores: 0-24).
4. *Writing Vocabulary:* Children are asked to write as many words as possible in ten minutes, starting with their own names and including basic vocabulary and other words. General prompting of categories of words (e.g., color words) by the teacher is used (range of scores: determined by the number of words a child can write correctly in ten minutes).

5. *Dictation:* Children write a sentence dictated word-by-word by the teacher. Credit is given for each phoneme represented by the correct letter (range of scores: 0-37).

6. *Text Reading:* Students read text selections leveled in difficulty to align with texts from the classroom. As the child reads, a running record is made of reading behavior. Children continue reading at higher levels until they reach two levels at which they score below 90 percent accuracy. The score on text level is the highest level read with 90 percent accuracy (range of scores: 1-34).

Table 1
Number of Students in the Reading Recovery (RR) and Non-Reading Recovery Groups

Location and Type of Student	RR Students	Discontinued Students	Not Discontinued RR Students	Non-RR Students
Amish from EHLSD*	26	25	1	82
Non-Amish from EHLSD*	12	8	4	48
Students from school systems outside the EHLSD* serviced by the Ashland RR site	84	64	20	108
All students from the school systems serviced by the Ashland RR site	122	97	25	238

* East Holmes Local School District

Calculating the Average (mean) Band

The goal of the Reading Recovery program is for discontinued Reading Recovery children to reach average levels of performance in their respective classrooms and continue to learn with their peers without any more assistance or remediation beyond regular classroom reading instruction. To determine whether the discontinued Reading Recovery students have reached the average levels of their peers, their mean scores on the Diagnostic [Observation] Survey were compared to the corresponding average bands that were calculated for the subtests of the non-Reading Recovery groups.

An average band for each non-Reading Recovery group was calculated for each subtest by subtracting one-half of a standard deviation unit from the mean and by adding one half of a standard deviation unit to the mean. Average bands were calculated on each of the six subtests of the Diagnostic [Observation] Survey for each of the three non-Reading Recovery groups.

Selection Procedures

Selection of Reading Recovery Students. The 44 Reading Recovery students included in this study were selected from first grade classrooms in five elementary schools of the East Holmes Local School District during the second week of September. Classroom teachers used an alternate ranking procedure in which they identified the two students with the highest and lowest reading ability in their class. Next, the second highest and lowest students were identified. The process was repeated until a class list was developed. Each Reading Recovery teacher developed individual class lists for each first grade classroom from which Reading Recovery children were selected.

Reading Recovery teachers tested the top and middle five percent of the children from each list in addition to the bottom 20 percent. Children from the top and middle five percent provided the Reading Recovery teacher with an estimate of the reading ability of higher functioning children in the class. Beginning of the year comparisons could be made between these children and the Reading Recovery children.

The lowest achieving four children were selected (from the bottom 20 percent of the students). These children formed the first group of Reading Recovery children to be taught in the program. The other children in this bottom 20 percent group were placed on a waiting list. When a child was discontinued, moved, or was referred from the program, the next lowest child entered the program.

Forty-four children from the East Holmes Local School District were instructed in the Reading Recovery program during the school year. Of those 44 students, 29 were Old Order Amish and 15 were non-Amish. Of the 29 Amish children, 26 received a full Reading Recovery program (i.e., they received more than 60 lessons or were discontinued). Of the 15 non-Amish children, 12 received a full program. Only students who experienced a full Reading Recovery program are included in the analysis. Six of the students (three Amish and three non-Amish) will not be included because they had less than 60 lessons, moved from the district, or were referred to another alternative program such as special education. Thus, for the purposes of this pilot study, the total Amish population of program children was 26 and the total non-Amish population of the program was 12.

All Reading Recovery entrants who receive 60 or more lessons are considered program children. The main goal of the program, however, does not focus on the number of lessons. Reading Recovery teachers attempt to enable program children to achieve at least the average level of reading performance accompanied by using independent reading strategies. This level of mastery of the reading process is required before Reading Recovery teachers will discontinue a student from the program. Many children are discontinued before 60 lessons are completed.

Other children may not meet these criteria even though they received 60 or more lessons. When students did not respond to the program, they were not discontinued and were not included in analyses which involves discontinued Reading Recovery students. Therefore, the statistical analyses which follow will contain only 25 discontinued Amish students and eight discontinued non-Amish students.

The Amish children included in this study were Old Order Amish and lived in a subculture similar to that described in an earlier section of this paper. Two of the elementary schools served only Amish children. It should be noted that some Amish parents may have more readily agreed to send their children to these public schools for this reason.

Because the Amish parents of the children in these two schools encouraged their children to speak the German dialect at home, intensive language intervention programs were implemented by the schools during the kindergarten year and the beginning of the first grade year. Therefore, children who had kindergarten experience were selected for the Reading Recovery program at the beginning of the year. If students did not attend kindergarten, they were not included in the first group of four children who entered the program. They could enter the program in the second group of children in first grade, allowing more time for language intervention and experience in school. This selection procedure supports the oracy to literacy research cited earlier. The general principle for selection of students for Reading Recovery is that the lowest achieving children are served (Clay, 1993). The program is intended for children who have shown to be at risk after one year of schooling. Last, Clay suggested that the child have sufficient English to "understand the instructions of the Observation [Diagnostic] Survey" (p. 67) (and presumably, the instructional programmes).

Selection of Non-Reading Recovery Students. Three groups of non-Reading Recovery students were identified. Two of these groups were identified in EHLSD first grade classrooms. One group was made up of all first grade Amish students in the EHLSD first grade classrooms who were not in the Reading Recovery program. This group consisted of 82 students. The second group contained all non-Amish Reading Recovery students from the EHLSD first grade classrooms. This second group consisted of 48 children. The third group consisted of the 130 non-Reading Recovery students from the EHLSD plus 108 non-Reading Recovery first grade students in the 14 school systems outside of the EHLSD serviced by the Ashland University Reading Recovery site.

These three comparison groups were used to establish the average levels of performance for first grade students through the calculation of average bands for the subtests of the Diagnostic [Observation] Survey. According to the tenets of the Reading Recovery program, discontinued Reading Recovery children should be achieving at or above this average level. Thus, the mean postscores of the Reading Recovery groups should fall within the average bands of the non-Reading Recovery groups.

Method of Instruction

After Reading Recovery children were identified and the comparison groups were established, the Reading Recovery program was implemented. Reading Recovery teachers conducted daily lessons for one-half hour, five days per week according to program guidelines. (For a complete description of the daily lesson procedures, see Clay 1985, pp. 56-58.)

Data Analysis

Question 1: Do the Amish discontinued Reading Recovery students in the EHLSD achieve end-of-year mean scores on the Diagnostic [Observation] Survey that are located within the mean-band scores of the (a) Amish non-Reading Recovery students from the EHLSD, (b) non-Amish non-Reading Recovery students from the EHLSD, and (c) non-Reading Recovery students throughout the Ashland University Reading Recovery site?

Question 2: Do the non-Amish discontinued Reading Recovery students in the EHLSD achieve end-of-year mean scores on the Diagnostic [Observation] Survey that are located within the mean-band scores of the (a) Amish non-Reading Recovery students from the EHLSD, (b) non-Amish non-Reading Recovery students from the EHLSD, and (c) non-Reading Recovery students from throughout the Ashland University Reading Recovery site?

To provide information relative to Questions 1 and 2, a comparison was made between the mean scores for the Amish discontinued Reading Recovery students on the six subtests of the Diagnostic [Observation] Survey and the corresponding average bands for the three comparison groups. Data in Table 2 contain the mean pretest and end-of-year scores on the six subtests for the Amish discontinued Reading Recovery children from the EHLSD first grade classrooms and the non-Amish discontinued Reading Recovery children in these classrooms. Table 3 lists the mean and standard deviation values of the end-of-year scores on the six subtests of the Diagnostic [Observation] Survey for the three comparison groups (e.g., the Amish non-Reading Recovery students and the non-Amish non-Reading Recovery students from the EHLSD first grade classrooms, and the non-Amish non-Reading Recovery students from the Ashland University site). Table 4 shows the comparisons of the mean end-of-year scores of the Amish discontinued Reading Recovery students to the average bands for the non-Reading Recovery students.

Table 2
Mean and Standard Deviation Values on the Diagnostic [Observation] Survey for the Discontinued Reading Recovery (RR) Groups

	Amish Discontinued RR Students from EHLSD*						Non-Amish Discontinued RR Students from EHLSD*					
Test	**Pretest**			**End-of Year**			**Pretest**			**End-of-Year**		
	n	**mean**	**SD**	**n**	**mean**	**SD**	**n**	**mean**	**SD**	**n**	**mean**	**SD**
Letter Identification	25	36.48	14.60	25	52.88	1.13	8	40.87	13.22	8	53.37	.74
Word Test	25	.64	3.00	25	19.16	1.25	8	.25	.46	8	18.87	1.81
Concepts About Print	25	8.04	3.46	25	20.32	1.70	8	8.37	3.02	8	18.25	3.15
Writing Vocabulary	25	5.04	4.60	25	47.16	11.11	8	1.75	1.04	8	50.87	9.36
Dictation	25	4.16	6.05	25	36.04	1.57	8	5.12	5.92	8	35.75	1.75
Text Reading	25	.44	1.21	25	21.08	5.26	8	0.00	.00	8	24.25	5.60

* East Holmes Local School District

The results contained in Table 4 indicate that all mean end-of-year scores except for the Concepts About Print subtest for the Amish discontinued Reading Recovery students were located in the corresponding average bands for the three non-Reading Recovery groups. The mean Concepts About Print subtest scores exceeded the upper limit of the average band for the Amish non-Reading Recovery group.

Five of the mean scores for the end-of-year non-Amish discontinued Reading Recovery group from the EHLSD first grade class were located within the average bands of the three non-Reading Recovery groups. Only the Concepts About Print mean score of the non-Amish

Table 3

Mean and Standard Deviation Values on the Diagnostic [Observation] Survey for the Non Reading Recovery (RR) Students

	Amish Non-RR Students from EHLSD*			Non-Amish Non-RR Students from EHLSD*			Non-RR Students from all Schools Serviced by the Ashland RR Site		
	End-of Year			End-of Year			End-of-Year		
Test	n	mean	SD	n	mean	SD	n	mean	SD
Letter Identification	82	52.97	1.53	48	53.22	.99	238	53.11	1.29
Word Test	82	19.00	2.39	48	19.10	1.28	238	18.91	2.24
Concepts About Print	82	18.61	2.93	48	19.68	2.55	238	19.26	2.71
Writing Vocabulary	82	47.63	15.17	48	50.23	11.41	238	45.47	14.73
Dictation	82	33.79	6.13	48	35.83	1.81	238	34.45	4.88
Text Reading	82	20.41	10.20	48	22.58	7.09	238	19.95	9.35

* East Holmes Local School District

Table 4

End-of-Year Diagnostic Survey Scores for the Discontinued Reading Recovery (RR) Students and Average Bands for the Non-Reading Recovery Groups

	Mean End-of-Year Score for Discontinued RR Students		Average Band for Non-RR Students		
Test	Amish Students in EHLSD* (n = 25)	Non-Amish Students in EHLSD* (n = 8)	Amish in EHLSD* (n = 82)	Non-Amish in EHLSD* (n = 48)	Average Band for all Non-RR Students (n=238)
Letter Identification	52.88	53.37	52.21-54.73	52.74-53.72	52.47-53.57
Word Test	19.16	18.87	17.81-19.94	18.46-19.74	17.79-20.03
Concepts About Print	20.32	18.25	17.15-20.07	18.42-20.96	17.91-20.61
Writing Vocabulary	47.16	50.87	40.05-55.21	44.52-55.92	38.11-52.83
Dictation	46.04	35.75	30.73-36.88	34.92-36.73	32.02-36.88
Text Reading	21.80	24.25	15.31-25.51	19.03-26.13	15.28-24.64

* East Holmes Local School District

discontinued Reading Recovery group fell slightly below the lower limit of the non-Amish, non-Reading Recovery group.

Question 3: Is the mean number of lessons required to discontinue Amish students less than the number of lessons required to discontinue (a) non-Amish discontinued Reading Recovery students in EHLSD and (b) discontinued Reading Recovery students from the school systems outside of East Holmes Local School District serviced by the Ashland University Reading Recovery site? Table 5 contains the analysis of the number of lessons completed for the Reading Recovery groups from the EHLSD and a group of all discontinued Reading Recovery students from outside of the EHLSD (n = 64).

Table 5
Mean and Standard Deviation Values for the Number of Lessons Completed Until Discontinued

		Lessons		Weeks
Group	**n**	**mean**	**S**	**mean**
Amish Students from EHLSD*	25	73.2	31.8	14.6
Non-Amish Students from EHLSD*	8	84.1	27.8	16.8
Students outside the EHLSD*	64	70.2	34.5	14.0

*East Holmes Local School District

East Holmes Local School District (EHLSD) Amish discontinued Reading Recovery students were discontinued in an average of 73.2 lessons or 14.6 weeks. East Holmes Local School District non-Amish discontinued Reading Recovery children were discontinued in 84.1 lessons or 16.8 weeks. The average number of lessons calculated for the discontinued Reading Recovery students outside of EHLSD was 70.2 lessons or 14 weeks.

According to common statistical practice, a difference of approximately one third or more of a standard deviation unit would indicate that the difference between two means is practically significant. One third of the weighted average standard deviation value for the number of lessons for the three groups was 11.1 lessons. Since the difference between the mean number of lessons for discontinuation of the Amish and non-Amish discontinued Reading Recovery students from EHLSD is 109, the difference approaches the size of being considered practically significant. The difference in the mean number of lessons for the discontinued Reading Recovery students outside of EHLSD and the Amish discontinued Reading Recovery students was 3.0 lessons. This difference did not approach practical significance.

Question 4: Does the proportion of Amish Reading Recovery students from EHLSD who discontinued from the program differ from the proportion of non-Amish Reading Recovery students from EHLSD who were discontinued from the Program?

Table 6 lists the number of students who were discontinued and not discontinued in the Amish Reading Recovery groups and non-Amish Reading Recovery group from the EHLSD. Only one of these 26 Amish students who had a full Reading Recovery program was not discontinued. She was tested and placed in a special education program. Four of the 12 non-Amish students in the EHLSD who had a full Reading Recovery program were not discontinued. A Fisher's exact probability test indicated that the proportion of Amish discontinued was statistically significantly greater than the proportion of non-Amish Reading Recovery students from the EHLSD who were discontinued.

Table 6
Number and Percent of Students Discontinued from the Reading Recovery (RR) Program

Group	Discontinued from the Program	Not Discontinued from the Program	Percentage Discontinued
Amish RR Students from EHLSD*	25	1	96.2
Non-Amish RR Students from EHLSD*	8	4	66.7

Note. A Fisher's exact probability test produced a probability level of .027.
*East Holmes Local School District

Discussion

The relationship of the school to the environmental zones of culture, subculture, and home directly influence children's success in school. When the school environment does not cut across the areas of subculture and family, the school zone is said to lie outside the children's own territory of subculture and family (Downing & Leong, 1982). Children who experience this phenomena are often called disadvantaged because their language, experiences, customs, attitudes, and values are foreign to those of the school.

Members of the Old Order Amish purposely create a lifestyle that places the characteristics of the public school outside the children's territory of subculture and family. The purpose of this study was to determine if these differences would inhibit progress of Amish children in a one-to-one strategy-oriented program of beginning instruction for at-risk readers. The language difference, limited experiential background, and desire for isolation from the ways of outsiders were viewed as obstacles that would interfere with school progress and make discontinuation from the Reading Recovery program more difficult.

It appears from the results of this study that concerns about the success of Amish children in the Reading Recovery program were unfounded. Amish children were discontinued at an unusually high rate in a shorter period of time than the non-Amish students from the East Holmes Local School District. The average amount of time Amish children spent in the program before they were discontinued was comparable to the average amount of time required to discontinue all discontinued Reading Recovery children outside of the EHLSD.

One implication which can be drawn from these findings related to a feeling voiced by some teachers and parents about the involvement of Amish children in the Reading Recovery program. It was expressed that cultural and language differences exist between Amish and non-Amish students, and these difference would inhibit the Amish students' progress toward discontinuation. It appears that these concerns are unwarranted. The analyses in this study indicates that Amish children may discontinue more quickly and at higher numbers than non-Amish children in the EHLSD.

When performance on subtests in the Diagnostic [Observation] Survey was examined, performance of Amish and non-Amish discontinued Reading Recovery children in the EHLSD elementary school was comparable. On one measure, Concepts About Print, the Amish discontinued Reading Recovery students' *mean performance* surpassed the upper limit of the average band of the non-Amish discontinued Reading Recovery students.

The success of Amish discontinued Reading Recovery students noted in text reading and the development of knowledge about books and printed language noted in concepts about print may be due to the fact that these children were having their first experience with a set of innovative, colorful texts in a strategy-oriented program which stressed concepts about print. It was noted that EHLSD non-Amish discontinued Reading Recovery students had lower average Concepts About Print scores even though their average text reading level was two levels higher than the Amish discontinued Reading Recovery children.

There could be other factors in the Amish home environment, however, that contribute to the success of Amish students in text reading and the development of concepts about print. Emphasis on daily Bible reading in the home has already been cited as one possible factor (Clay, 1976). The Amish Reading Recovery students would experience a similar emphasis on Bible reading. Fishman (1987) has begun to document ethnographic studies of how Amish families in Lancaster, Pennsylvania, prepare their children for literacy demands. A more extensive look for parallels between these works and the literacy environment of Holmes County Amish should be pursued.

In her study on the effect of language and cultural differences on learning to read, Clay (1976) made the following conclusion:

> The study of the Samoan child in this research has contributed markedly to new understanding . . . . The Samoan child who speaks two languages, who is introduced to a book and to written message in his home, who is urged to participate fully in schooling, and is generally supported by a proud ethnic group with firm child-reading practice, manages to progress well in the early years of school without handicap from his low scores on oral English tests. It appears from this study that the comprehension of English for the Samoan child was developed in a good instructional program which operated like a monitoring system directing the child's attention to more and more sources of cues to the written message. In both these respects schooling was the source of progress. (p. 341)

It appears that even though the Amish attempt to use cultural and social differences to maintain isolation from those outside their subculture, they realize the importance of education as a means of maintaining their lifestyle. The priority placed on mastering practical knowledge in basic subject areas appears to have a positive supportive effect of encouraging the child to fully participate in schooling in the midst of a family whose firm child rearing practices are rooted in its proud religious heritage. These qualities, combined with the schooling effects of the strategy-oriented Reading Recovery early intervention program, have created a school situation that allows Old Order Amish children at risk of reading failure to achieve success.

References

Barker, R. (1986, February). *The farm experience: Its importance in a child's life.* Paper presented at the meeting of the North American Montessori Teachers Association Regional Conference. (ERIC Document Reproduction Service No. ED 265 958)

Bontreger, E. (1969). What is a good education? In J. Hostetler (Ed.), *Anabaptist conceptions of child nurture and schooling.* Philadelphia: Temple University College of Liberal Arts.

Brown, A. (1985). Metacognition: The development of selective attention strategies for learning from texts. In H. Singer & R. Ruddell (Eds.), *Theoretical models and processes of reading* (3rd ed.) (pp. 501-526). Newark, DE: International Reading Association.

Clay M.M. (1976). Early childhood and cultural diversity in New Zealand. *The Reading Teacher, 29*(4), 333-342.

Clay, M.M. (1979). *Reading: The patterning of complex behavior* (2nd ed.). Portsmouth, NH: Heinemann.

Clay, M.M. (1985). *The early detection of reading difficulties* (3rd ed.). Portsmouth, NH: Heinemann.

Clay, M.M. (1993). *Reading Recovery: A guidebook for teachers in training.* Auckland, New Zealand: Heinemann.

Downing, J., & Leong, C. (1982). *Psychology of reading.* New York: Macmillan.

Ediger, M. (1980). The Old Order Amish in American society. *Education, 101,* 29-31.

Entwisle, D. (1969). *Semantic systems of minority groups* (Report No. 43). Washington, DC: The Johns Hopkins University. (ERIC Document Reproduction Service No. ED030 106)

Fishman, A.R. (1987). Literacy and cultural context: A lesson from the Amish. *Language Arts, 43*(8), 842-845.

Havinghurst, R., & Neugarten, B. (1975). *Society and education.* Boston: Allyn and Bacon.

Hostetler, J., & Huntington, G. (1971). *Children in Amish society: Socialization and community education.* New York: Holt, Rinehart and Winston.

Huck, C., & Pinnell, G. (1984/1985). *The Reading Recovery project in Columbus, Ohio: Pilot year, 1984-1985.* (Tech. Rep.). Columbus: The Ohio State University.

Keefer, D. (1969). *The education of the Amish children in LaGrange County, Indiana.* Carbondale: Southern Illinois University.

Lee, K. (1984, July). *Amish society—In celebration of rural strengths and diversity.* Paper presented at the annual National Second International Institute on Social Work in Rural Areas (Report No. 141). (ERIC Document Reproduction Service No. ED258 746)

Logan, W. (1964). *Language ability: Grades seven, eight and nine* (Project No. 1131). Berkeley: University of California, Berkeley.

Lyons, C., Pinnell, G., McCarrier, A., Young, P., & DeFord, D. (1987). *The Ohio Reading Recovery project: Volume VIII, State of Ohio, year 1* (Tech. Rep.). Columbus: The Ohio State University.

Lyons, C., Pinnell, G., Short, K., & Young, P. (1986). *The Ohio Reading Recovery project: Volume IV, pilot year, 1985-1986* (Tech. Rep.). Columbus: The Ohio State University.

Miller, J., & Aguilar, W. (1984). Public library use by members of the Old Order Amish faith. *Reading Quarterly, 23*(3), 322-326.

Parsons, E. (1983). *Factors influencing the teaching of Amish students in public school* (Report No. 131). (ERIC Document Reproduction Service No. ED 233 835)

Pinnell, G.S., Fried, M., & Estice, R. (1990, January). Reading Recovery: Learning to make a difference. *The Reading Teacher, 43*(4), 282-295.

Pinnell, G., Short, K., Lyons, C., & Young, P. (1986). *The Ohio Reading Recovery project: Follow-up study in Columbus, Ohio, Volume II, 1985-1986* (Tech. Rep.). Columbus: The Ohio State University.

Pinnell, G., Short, K., & Young, P. (1986). *The Ohio Reading Recovery project in Columbus, Ohio: Volume III year one, 1985-1986* (Tech. Rep.). Columbus: The Ohio State University.

Ransbury, M. (1973). An assessment of reading attitudes. *Journal of Reading, 17*, 25-28.

Sticht, T., & James, J.H. (1984). Listening and reading. In R. Barr, M. Kamil, & P. Mosenthal (Eds.), *Handbook of reading research* (pp. 293-317). New York: Longman.

Wittmer, J. (1972). The Amish and the Supreme Court. *Phi Delta Kappan, 54*(1), 50-52.

Wittmer, J. (1983). . . . . Be ye a peculiar people. *Contemporary Education, 54*(3), 179-183.

Wittmer, J., & Moser, A. (1974). Counseling the Old Order Amish child. *Elementary School Guidance, 8*, 263-270.

Wolfson, J. (1976). *Cultural influences on cognition and attainment*. Milton Keynes, England: Open University Press.

Reprint

LEARNING DISABILITIES-
A BARRIER TO LITERACY INSTRUCTION

Paper presented at Literacy Day, Washington, DC, by the staff of the Washington Office of the International Reading Association, Newark, DE. The viewpoints expressed in this paper are not necessarily endorsed by nor do they represent the official position of the International Reading Association.

LITERACY,
TEACHING AND
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41

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The Challenge

Literacy is the key to success in school and later life. Children who fail to learn how to read and compute in the elementary grades are most likely to fall behind and leave school. In fact, the largest category of students who drop out of school do so because they have fallen behind in reading. Their illiteracy affects not only their lives and that of their families, but society as a whole.

Literate societies have been found to have more stable governments, more productive economies, even healthier citizens. Indeed, literacy reflects the accomplishments of society. No longer can literacy be considered the simple ability to write one's name and read a few passages of the Bible as it was in the early 1900s.

Today, literacy requires being fully able to read, comprehend, and use the complex written information that drives and defines our fast-paced world. Yet for a large segment of our school population today, being mislabeled *learning disabled* has, in and of itself, become a barrier to literacy.

This was not the intent of the creators of the long-fought-for programs and statutes governing the education of the learning disabled. Nor was it the intent of educators and school officials dedicated to improving the basic skills of children at risk. It has, however, become a sorry factor of our nation's schools in the 1990s.

In 1976, a milestone was achieved with the passage of the Education of the Handicapped Act. No longer was American society going to ignore the educational needs, dreams, and rights of its handicapped children.

But much has changed. Teachers are being replaced by paraprofessionals, budgets are being cut, and reading achievement scores—which were climbing in the 1980s—are flattening out in the 1990s. At the same time, the number of handicapped children enrolled in our schools has grown dramatically, especially the subgroup of handicapped categorized as learning disabled.

The facts are clear. Fifty percent of the children who are labeled handicapped are categorized as learning disabled (NCES, 1995). Over the past ten years, the learning disability population has more than doubled (NCES, 1995). And nationally, students who are labeled learning disabled drop out of school at the rate of one out of every five students.

There is little question that learning disabilities form a distinct and special educational challenge in a modern society. But the International Reading Association is convinced that millions of children are intentionally being mislabeled as *learning disabled* in an attempt to gain some support for extra services for these children. As a result, children who are experiencing difficulties in specific subject areas are not being provided with the services they need to succeed in school. Unwittingly, our schools have thrown up a barrier to their literacy.

At the same time, the truly learning disabled children are losing the highly specialized, one-on-one attention they need to cope with their learning disabilities as special education classrooms become a dumping ground for more and more children requiring remedial help. The International Reading Association believes that all children should have an equal chance and the appropriate teaching to become literate. This report will raise several questions relating to the literacy education being offered to students who are labeled learning disabled, give examples of effective programs, and suggest changes in policy.

The Problem of Definition

The procedures outlined in the Individuals with Disabilities Education Act (IDEA) for identifying a child who is learning disabled are quite clear. A child who is suspected of having learning disabilities is evaluated, a team reviews that evaluation, and a recommendation is made. The process, however, breaks down at inception. The definition of learning disabilities is vague and has become even more so over the years (Mercer, 1990).

According to the 1977 criteria, a learning disability was defined as a neurological problem with an academic component. Now, most students who are identified for a learning disability placement are so identified because they are having difficulty in a specific subject area — a purely academic determination, made without reference to any physical impairment. Specifically, the vast majority of students who are suspected of having a learning disability are so evaluated because they have a problem in reading and/or computation.

Controversy surrounding learning disabilities is not new. As early as 1986, in reviewing the data on the growth of the learning disabled category, J.K. Torgesen stated the definition had shifted from one used to identify children who were suffering from a neurological difficulty to one based on the child's degree of academic success. In the nine years since this was written, the learning disabled population has increased to even greater size, although the total number of students in U.S. schools has decreased.

In 1989, Chalfant reported several key criticisms associated with the term *learning disabilities*. Included in this report are the lack of consensus as to what constitutes a learning disability, concerns about how effective special education programs are, and the fact that criteria for eligibility are unclear.

By 1993, even the U. S. Department of Education, in its Sixteenth Annual Report to Congress, reported it was beginning to look at the issue of why more students were being identified as learning disabled. In 1995 these problems remain unsolved.

The issue of defining learning disabilities also appears as a critical concern in the reporting of the *Learning Disability Quarterly* (Spring, 1990). The journal focuses on how states are using different criteria in defining learning disability. "According to current data, academic achievement remains basic to defining and identifying LD" (p. 148). Specifically, reading, writing, and arithmetic are included in the definition in 92 percent of the states.

The Problem of Placement

How can we best respond to the needs of a child who has a reading problem? Here the questions of labeling become critical: If the child is truly learning disabled, specialists trained in learning disabilities and reading can provide effective intervention. But if the child's problem is academic and not neurological, removal to a special education program may do more harm than good.

Today, the common practice is to place a student who is having difficulty learning how to read in a special education setting. This practice is believed to be beneficial for the student, but this type of placement may actually be hindering the ability of trained professionals to adequately serve the students in a cost effective manner.

Special education teachers are trained to teach special education students, and reading teachers are trained to teach students with reading problems. Special education teachers know how to respond to a student who has a problem processing information. In most cases, a special education teacher does not know how to handle a student who is having difficulty in a core content area.

This is where the problem begins. The data demonstrate that students who are having problems in the content area of reading are being misplaced in special education classes (Allington & Broikou, 1988, p. 806). Once they are placed in this type of setting they do not receive the style of teaching that would best suit their problem. In turn, students who are *lost* in programs that are ill-suited for them are dropping out of school at a higher rate than students who are in the general education program.

Pre-Referral Interventions

One promising solution is the trend toward using pre-referral interventions. Several states (among them Florida, Minnesota, Alabama, Kansas, and Maryland) now require a pre-referral intervention before any student is classified as learning disabled or placed in special education.

Pennsylvania is another state which is making a significant effort to provide students with a suspected learning disability an alternative to special education. This process, as outlined by the Pennsylvania State Department of Education, directs local schools to establish Instructional Support Teams made up of experts in instructional assessment, instructional adaptation, effective behavior management, and assistance for at-risk students. These teams are designed to assess and respond to the learner's needs and abilities rather than declaring the student handicapped. Since its inception, schools implementing the program report their referrals to special education have dropped 46 percent, as compared with schools which have not implemented the program.

Staff Development

A second area offering promise for meeting the needs of children at risk is staff development. Reading Recovery, an early intervention program for young children having difficulty beginning reading, provides an excellent example.

The staff development approach is integral to the Reading Recovery program. The goal of staff development is to give the teachers the ability to make effective decisions while teaching intensively (Pinnell 1990, p. 18). The teachers who participate in the Reading Recovery program prepare by participating in a yearlong course. At the start of their training, teachers take part in a thirty hour workshop (Pikulski, 1994, p. 37). The next step requires the teacher to attend an after school training session while also tutoring a student one-on-one during the school day (Pinnell, 1990, p.18).

Parts of this inservice training involves teaching a demonstration lesson behind a one-way glass while the rest of the teachers in training observe (Pinnell, 1990, p.18). Those who are observing are advised to talk to each other during this lesson. This process aids the teachers in sharpening their abilities to observe and to make decisions while they are actually in the process of teaching. After the completion of their year inservice course, they continue to increase their skills and knowledge through peer counseling and continuing contact sessions. The high success rate of this program is attributed to the extensive training of the participating teachers.

Another model of effectiveness may be found in the Chelsea schools in Massachusetts. In the schools, reading teachers are paired with the regular classroom teachers, who had also been given additional training. Both teachers then spend two hours a day working on reading instruction in these poor inner city schools. This technique effectively lowered the class size during reading instruction and provided children most in need with two highly trained professionals. The results have been significant. Yet, very few school leaders have focused on learning disabilities and literacy as an issue of teacher training and knowledge. What a teacher knows how to teach is critical to the potential success of the student.

Several other programs that emphasize staff development have been able to achieve success with students who are at high risk for reading failure. These include *Success for All*, the *Winston-Salem Project*, *Early Intervention in Reading*, and the *Boulder Project*. These five programs all use qualified, certified, and experienced teachers and teacher aides (Pikulski, 1994, p. 37). In fact, "Professionally prepared, accomplished teachers are the mainstay of successful early intervention programs" (Pikulski, 1994, p. 38).

Case Studies - Examples of Success

There are several examples of successful intervention programs for children who are labeled learning disabled. The first case study is of the Reading Recovery program. It is a program designed to help students who are at risk of failure in reading and would often otherwise have been identified as learning disabled. Reading Recovery (RR) is a program that effectively teaches children how to read. Not only does it reduce the number of children who are labeled with learning disabilities, but it also significantly reduces the number of children who are *retained* in remedial reading programs.

Reading Recovery is "an early intervention program . . . [that] enables the lowest-achieving students . . . to catch up to the average readers in their respective first grade and continue to learn with regular classroom reading instruction" (Pinnell, 1990, p. 118). Specially trained teachers instruct their students to become independent readers and to learn with enthusiasm.

The first program evaluation was for the school year 1984-1985. "The results of the RR program have been overwhelmingly encouraging. . . . [J]ust over 84 percent of the 15,663 Ohio first grade pupils who completed the Reading Recovery program reached the average reading level of their first grade classrooms" (Pinnell, 1980, p. 119). Consequently, the RR program has spread throughout the United States at a quick pace. Research has shown the RR program has lowered the number of low-progress first grade students who had been classified as learning disabled. In addition, it allowed educators to be more discriminating when classifying students who might need specialized instruction (p. 121).

The results are promising. The more effective teaching of trained RR instructors enables students to learn in less time than was previously required. Furthermore, it is a cost-effective program. "Placing children in the Reading Recovery program for 15-20 weeks of one-to-one intervention is far less expensive than placing them in a special education program for one year" (Pinnell, 1980, p.133).

Table 1

Reading Recovery Savings: Comparison with Grade Retention, Chapter 1 [Title I], and Special Education in the Elementary Grades

Intervention	Annual Cost	Program Length	Child/Cost
Retention (First Grade)	$5,208	1 yr. 1,080 hours	$5,208
Chapter 1	$ 943	5 yr. 525 hours	$4,715
Special Ed (LD)	$1,651	6 yr. 1,512 hours	$9,906
Reading Recovery	$2,063	1/2 yr. 40 hours	$2,063

Programs such as Reading Recovery are not only educationally effective but also cost efficient. In a report on the cost effectiveness of Reading Recovery (Allington & Walmsley, 1995), the savings were surprising when compared with other interventions: Title I (then Chapter 1), Retention in the First Grade, and Special Education (LD). In short, the early intervention program was found to be cheaper, shorter, and more effective.

Early Intervention Reading

Early Intervention Reading (EIR) is a program designed to supplement low-achieving first graders with a reading program that will allow them to develop as successful readers by the end of three school years. This program differs from the Reading Recovery program in that is does not require individual tutoring. Instead, it requires the regular classroom teacher to spend about 15 to 20 minutes each day with a group of the lowest-achieving students in the class. As a way of keeping the attention and enthusiasm of the students, the group participates in storybook reading. EIR emphasizes the teaching of phonics, writing, and repeated reading.

This Early Intervention Reading program has been implemented in many areas around the country, including St. Louis Park district, Missouri; White Bear Lake, Minnesota; and Osceola, Wisconsin. Through extensive research and case studies, the program has undergone some modifications. Teachers learned that although the EIR students remained as part of the whole classroom, the program was completely separate. Teachers found if they simply continue with the original reading lesson, students are more attentive and willing to learn. Another change has occurred in the teaching dimension of EIR. Previously, the classroom teacher was assigned full responsibility for implementing the program. Now, in many districts, there is a specifically trained EIR assistant who works part time with the small groups.

The results are encouraging. Well over half of the students who were originally in the lowest 20 percent of their class showed major improvements in their reading skills as measured by standardized tests. In addition, fewer children were being placed in learning disability classrooms, and their newfound reading skills remained with them throughout the second grade.

Although the results of EIR for individual students are not as dramatic as those of Reading Recovery (the difference is attributed to the fact that EIR does not provide extensive, one-on-one tutoring), the program has the ability to reach more children. In turn, more students learn to read. Additionally, the program is effective, inexpensive, and promising. Unlike other programs with similar goals, EIR "can provide many low-achieving first-grade students with the support they need to learn to read along with their peers" (Taylor, et al. in Allington, 1995, pp. 174-75).

Removing the Barrier

Children with problems in school are not benefiting by being classified as learning disabled, a label that suggests malfunctioning. The aforementioned programs all have something in common: they don't view the child as broken, but rather the system that has been provided to them as being the problem. When these students enter into Reading Recovery or Early Intervention, over 75 percent of them complete the program successfully.

Why isn't this the common approach? First of all, the Individuals with Disabilities Education Act (IDEA) encourages schools to label children who need intensive help as being broken. The system is self defining and self monitoring. There are few (if any) requirements to report on the progress being made by students who are identified as being learning disabled.

The failure, then, is not of special education, teacher training, or of the child; it is a failure of policy. This can be changed, as noted in the Pennsylvania approach that supports a program of effective intervention. The federal statute must be changed to reflect this progress in thinking about how best to help children at risk. The growth in the numbers of learning disabled students is not a reflection of the number of children who have a perceptual or neurological problem that inhibits their learning; it is rather that the definition has come to mean a lack of progress in core academic subjects. The system has mutated badly.

We recommend that the Federal Government change its definition of learning disability to reflect the growth in understanding and the alternatives that are now available. The government should require schools to attempt a high quality intensive intervention in the core academic subject that the child needs help in. We believe, after one year, 75 percent of the children at risk will be working at the level of their peers, and those who are helped in the early years will be able to participate in the other subject areas as well and will not be isolated further by their lack of skills. Only the remaining students are truly learning disabled and need the training and support of special educators.

It is our choice. Do we continue to offer programs that are inappropriate and contribute to our drop-out population? Or do we recognize the weaknesses in our current methods and do all we can to improve them? The choice we make now will have a profound effect on our children's literacy and our nation's future.

References

Allington, R.L., & Broikou, K.A. (1988, April). Development of shared knowledge: A new role for classroom and specialist teachers. *The Reading Teacher*.

Allington, R.L., & Walmsley, S.A. (1995). Redefining and reforming instructional support programs for at-risk students. In R.L. Allington & S.A. Walmsley (Eds.), *No quick fix: Rethinking literacy programs in America's schools* (pp. 19-44). New York: Teachers College Press and International Reading Association.

Chalfant, J.C. (1989, February) Learning disabilities: Policy issues and promising approaches. *American Psychologist*.

Indrisano, R., & Paratore, J.R. (1994). Changing classroom instruction in literacy. *Journal of Education, 176*(1).

Kovaleski, J.F. (1994, November). The Instructional Support Team. *IST Basic Information Booklet*.

Mercer, C.D. (1990, Spring). Learning disabilities: Definitions and criteria used by state education departments. *Learning Disability Quarterly*.

Pikulski, J.J. (1994, September). Preventing reading failure: A review of five effective programs. *The Reading Teacher*.

Pinnell, G.S. (1990, September). Success for low achievers through Reading Recovery. *Educational Leadership*.

Slavin, R.E., Karweit, N.L., & Wasik, B.A. (1994)*. Preventing early school failure, research, policy, and practice.* The John Hopkins University. Allyn and Bacon.

Torgesen, J.K. (1986). Learning disabilities theory: Its current state and future prospects. *Journal of Learning Disabilities*.

U.S. Department of Education. (1994). *Sixteenth annual report to Congress on the implementation of the Individuals with Disabilities Education Act*. Washington, DC: Author.

U.S. Department of Education, National Center for Education Statistics. (1995).*The condition of education*. Washington, DC: Author.

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Reprint

HELPING LOW-ACHIEVING FIRST GRADE READERS: A PROGRAM COMBINING READING RECOVERY TUTORING AND SMALL-GROUP INSTRUCTION

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49

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RECENTLY, A GREAT DEAL OF ATTENTION HAS FOCUSED ON IDENTIFYING best practices in educational programs (Zemelman, Daniels, & Hyde, 1994). Cunningham and Allington (1994) argue that educators must look closely at the common characteristics of classrooms and programs where learning is a priority and ask, "What can educators learn from these programs?"

The Reading Recovery program is one such program with a long history of success in helping children who are experiencing early reading difficulties. It is designed to provide intensive one-to-one tutoring for the lowest-achieving children from first grade classrooms.

Although as Clay cautions, "most children do *not* require the detailed, meticulous and special Reading Recovery procedures or any modification of them" (1994b, *Introduction*) the theoretical principles that support this literacy program can inform instructional practices with small groups of low-achieving children, as well as instruction for all beginning readers. These principles include: (a) observing children as they engage in reading and writing events; (b) using children's known concepts as a basis for teaching unknown concepts; (c) employing a variety of *real* books and writing experiences to help children learn how to read; (d) accelerating children's literacy processes by providing balanced opportunities for independent and assisted learning on meaningful tasks; and (e) focusing instructional interactions at a strategic problem-solving level, in contrast to acquiring items of knowledge.

The effectiveness of Reading Recovery is well documented. However, schools that have successful Reading Recovery programs in operation sometimes find it difficult to employ enough Reading Recovery teachers to serve all children who need early intervention. Therefore, some researchers have focused on early interventions programs for working with low-achieving children in groups (see Hiebert & Taylor, 1993). Some schools have instituted programs that combine Reading Recovery and small-group literacy services, thus utilize the training, knowledge, and expertise of the Reading Recovery teacher and addressing the issue of cost-effectiveness.

An important study conducted by researchers at The Ohio State University examined the effectiveness of five different early intervention programs (Pinnell, Lyons, & DeFord, 1991). Individual tutoring programs included the Reading Recovery program, an adapted Reading Recovery approach, and a direct instruction skills program. Small-group tutoring programs included a reading/writing group taught by trained Reading Recovery teachers and a control group which consisted of the existing Chapter 1 school program.

The researchers concluded that the Reading Recovery program was the most powerful of the interventions studied. The reading/writing group taught by Reading Recovery teachers was not as effective. The researchers noted, however, that these teachers had not received training for transferring their knowledge of Reading Recovery theory to a group setting.

This article describes an approach that supplemented existing Reading Recovery programs with small-group early literacy instruction in 28 Arkansas public schools. The approach was developed to provide additional support for first grade children who needed early intervention, but for whom there was no space in the Reading Recovery program at the start of the year. The development of the early literacy project is described, with the evaluation conducted in Year 3 of the project discussed in detail.

Background of the Early Literacy Project

During 1991-1992 of the Reading Recovery program in Arkansas, an early intervention project was piloted in four Reading Recovery schools where Reading Recovery programs were already in operation. The program grew out of Arkansas Reading Recovery educators' concerns about the high numbers of low-achieving children in Reading Recovery schools in the state of Arkansas. We feared that, without additional support, children unable to enter Reading Recovery in the first semester would fall further behind in the regular classroom.

Clay (1994b) argues that children habituate inappropriate reading behaviors in a short amount of time; as a result, they become resistant to instructional changes. Our concern was that children who had to wait until later in the year for Reading Recovery services would find it harder to catch up with their classmates.

Under the pilot program, the lowest-achieving students in the first grade classroom received Reading Recovery intervention. At the same time, children who qualified for the Reading Recovery program but had been placed on the waiting list because of lack of space in the regular program received small-group instruction from Reading Recovery teachers. Each Reading Recovery teacher provided individual instruction to five students and also taught two early literacy groups of five low-achieving first grade students on a daily basis.

Early in the school year, Reading Recovery teachers who served small groups of children received two inservice classes on early literacy and at least two school visits from the teacher leader to observe and support the group program. During the spring and summer semesters, graduate courses in early literacy instruction were offered at the university. Most Reading Recovery teachers participated in these courses.

At the end of the pilot year, preliminary data from the study indicated that schools using the Reading Recovery/Early Literacy program were able to serve and successfully discontinue greater numbers of low-achieving first grade children than were schools without the small-group component. The following year, 12 Arkansas schools elected to use the Reading Recovery/Early Literacy program, and the program was further developed and researched.

During the third year, based on positive results from previous years, a total of 28 Arkansas schools adopted programs that included Reading Recovery for the lowest-achieving children and small-group literacy instruction for children on the Reading Recovery waiting list. At the end of Year 3, nearly 400 children had participated in small-group instruction with a total of 34 Reading Recovery/Early Literacy teachers.

Development of the Small-Group Program Over Three Years

Our small-group program was based on an organizational structure suggested by The Ohio State Reading Recovery program for areas that serve large numbers of at-risk children. Arkansas teachers have participated in extensive training at the University of Arkansas at Little Rock (UALR) and have made changes and refinements based on personal experiences in working with groups of low-achieving children. The following examples illustrate important shifts in our work with group instruction.

Length of daily group sessions. In Year 1, groups met for 30 minutes daily. During the second year, teachers expressed a need for more time with the group, and the daily group lessons were lengthened to 45 minutes.

Working with a focus child. During the second year, teachers expressed the need to spend more time with individuals within the group. Since group members exhibited a range of literacy behaviors, the one-to-one attention enabled the teacher to focus more exclusively on the strengths and needs of individual children. It also provided the teacher with an ongoing record of progress for each member of the group, therefore guiding the teacher in making more effective decisions based on the collective needs of the group.

Less time on literature extension activities. During the second and third years, teachers evaluated the amount of time devoted to art and drama activities in the group program. They reasoned that children were involved in these events in first grade classrooms, and the most productive use of time was actual reading and writing activities. An exception to this was the drawing of a picture during the journal writing component and illustrations for student-written books.

Letter and word building component. Because many group children had very limited print knowledge, teachers saw the need to incorporate more opportunities for children to learn about letters and words. As a result, at the beginning of Year 3, this component was added to the group program. Print-related activities were based on current theories of phonological awareness (Clay, 1993, Goswami & Bryant, 1990) and the work of Cunningham and Allington (1994).

ABC shared reading. This component was added during Year 2, after a visit from a colleague in Ohio. In the activity, children begin the session with a shared reading of a chart containing the letters of the alphabet. A reduced version of the chart is used to assist children during independent journal writing time.

During Year 3, the chart was modified to accommodate the strengths and needs of the individual and group children: (a) letters on the chart were cut apart and mounted with one letter on each page in a Big Book, which the group read as a shared event and (b) letters from the chart were reduced and bound into a small ABC book, which was used during one-to-one instruction with the teacher and the focus child. Teacher judgement was used in determining the most appropriate use of the ABC chart with different groups. Some teachers noted that as children became more successful readers and writers, the chart was not a productive use of student time.

Current Instructional Components of the Early Literacy Small-Group Program

By Year 3, the early literacy small-group program had been refined to include the following components, which were generally organized in a very predictable format.

Activities using children's names. Clay (1991) describes how the child's name forms a network for acquiring all kinds of information. Teachers design a variety of activities using the names of group children to promote attention to the forms, functions, and relationships in written language (for example, upper and lower case forms, concept of letter and word, similarities and differences between letters, word length, and concept of first and last).

Shared reading of ABC chart or book. This activity supports children in acquiring knowledge of letters and a special picture/sound cue for forming a link to the letter. The teacher and children read the chart together, and a reduced version of the chart or book is placed with each child's journal for an independent resource. The teacher uses information from the chart as a special cue for linking to various reading and writing activities throughout the lesson.

Reading of familiar materials. The rereading of easy materials provides the children with opportunities for independent, fluent reading. In addition to books, children read familiar charts, group written stories, and other written artifacts hanging in the room.

Independent reading/running record. The purpose of this activity is to provide a child within the group with opportunities to practice strategy use on a new book that was introduced the previous day in the group setting. As the child reads the book in a one-to-one setting, the teacher takes a running record. Afterwards, the teacher selects two or three teaching points to promote the child's problem-solving activity.

Shared reading. During shared reading, the teacher engages the children in making predictions, reading fluently, and problem-solving activities within a supportive group setting. Materials used include commercial Big Books, chart stories, poetry, and teacher-written materials.

Teacher read aloud. This activity provides children with opportunities to hear the rich vocabulary and gain content knowledge from stories they would be unable to read independently.

Word analysis. This activity is designed to promote the use of problem-solving strategies for exploring and manipulating words. Materials used include magnetic letters, sentence strips, word cards, student-generated lists, and word walls. Although some activities are preplanned, most words are taken from reading and writing events under discussion at the time.

Interactive writing. This activity promotes attention to conventions of written language within a supportive group setting. Instruction focuses on the acquisition of early reading and writing behaviors that are necessary for children's success in reading: (a) conventions of print, such as directional movement, one-to-one matching, concepts of word and letter, etc; (b) hearing sounds in words; and (c) acquiring some high frequency words. During interactive writing, the teacher uses explicit language and actions to channel the children's attention to particular concepts of written language. In the early stages, the writing is characterized by predictable, repetitive language patterns; but as children acquire more knowledge about print, messages become more varied and complex (for example, writing a letter, the morning news, etc.). The teacher and children share in the actual writing of the message.

Shared writing. As children acquire early reading and writing behaviors, the activity shifts to the writing process. During shared writing, the focus is on the construction of a meaningful story, with less emphasis on the print itself. The teacher does most of the writing, while engaging the children in dialogues about the story development. Generally, the completed story is too long for the children to read independently. The teacher recopies the story from the chart tablet into a Big Book with appropriate lines of text that are supportive of the children's reading. The children illustrate the book, which is used for shared and familiar reading events.

Journal writing. Journal writing provides children with opportunities to apply their developing knowledge of writing in an independent setting. Prior to implementing journal writing, the teacher demonstrates the process to the group. As she writes a story, she verbalizes her problem-solving actions. Generally, journal writing stems from a previous activity, such as shared reading or a book that the teacher has read to the group. Before writing, the children are encouraged to tell their story to the group. As the group writes independently, the teacher works one-to-one with the focus child. Afterwards, the teacher responds to each child's message, praises the child for sounds heard, and selects a quick teaching point for each child.

Cut-up sentence. This activity occurs in a one-to-one situation between the teacher and the focus child. The purpose is to promote the child's visual searching behaviors. Following the writing lesson, the teacher writes the message on a sentence strip, cuts it at appropriate points, and asks the child to assemble the message in a special book. One child a week receives this extra attention.

Introducing a new story. A new book is carefully selected for the next day's focus child and introduced in the group setting at the end of each day's lesson. The teacher asks specific questions to the child who will read it the following day. Also, the teacher prompts the child to read particular pages independently. After the first reading, the group engages in a fluent reading of the story.

Evaluation of the Reading Recovery/ Early Literacy Group Program: Year 3

Based on findings from Years 1 and 2, the purpose of the current study was to further explore the effectiveness of this early intervention program, which used Reading Recovery for the lowest-achieving children and a small-group literacy instructional program for children unable to be served immediately by Reading Recovery.

Subjects and Setting for the Study

Sites. A total of nine schools across three districts were selected to participate in this study. Each school district contained a Reading Recovery program and a small-group early literacy program. One district had seven schools with a Reading Recovery teacher in each school. The remaining two districts contained one school each, with two Reading Recovery teachers per school.

Teachers. A total of eleven Reading Recovery teachers participated in this study. Three of the teachers had master's degrees in reading and five were currently working on completing their degrees. Teacher selection was based on the following criteria: (a) teachers had received training in small-group instruction through the University of Arkansas at Little Rock's early literacy program and (b) teachers kept good documentation on the progress of Reading Recovery and small-group children.

Students. Due to mobility in the schools and missing data on several literacy group children, the original sample was reduced. The final analytic sample consisted of a total of 231 students from nine schools who participated in one of the following programs: (a) Early Literacy small-group only, (b) Early Literacy small-group followed by Reading Recovery, or (c) Reading Recovery only.

Outcomes Measures

Diagnostic testing was administered at entry and exit for both Reading Recovery and small-group literacy programs. The six measures are described.

Letter Identification. Children were asked to identify 54 letters (lower case, upper case, and printed *a* and *g*). Credit was given if the child knew the name of the letter, the sound for the letter, or a word beginning with the sound of the letter.

Ohio Word Test. Children were asked to read a list of 20 high frequency words commonly encountered in a beginning reading program.

Concepts About Print. Using a little book, children were asked a series of 24 questions to assess their awareness of particular concepts about print (e.g., front of the book, message contains the print, directional movement, one-to-one correspondence of spoken/printed language, etc.).

Writing Vocabulary. Children were asked to write all the words they knew how to write in ten minutes, starting with their own names and including basic vocabulary and other words.

Dictation. A short story was read to the children and they were asked to write the story, one word at a time. In scoring, children were given credit for every sound represented correctly, thus indicating their ability to analyze and record sounds in words.

Text Reading. Children were given the title of a book selection(s), a brief standard introduction to the story, and were asked to read text materials in graded levels of difficulty. The child's text reading level indicated the highest level of text that the child was able to read at 90 percent accuracy or above.

Types of Intervention Programs

Based on the results of assessment criteria, low-achieving children were selected to participate in the most appropriate literacy intervention program. The three interventions are described.

Reading Recovery. The lowest achieving children received one-to-one tutoring for 30 minutes daily with a Reading Recovery teacher. When a child showed evidence of attaining a self-extending system for independence in reading, the child was returned to the first grade classroom and received no further intervention. Research has shown that 60 lessons is the average number required for children to reach satisfactory reading levels.

Early Literacy Small-Group. Children who initially were not as low-achieving as the Reading Recovery group received literacy instruction in small groups of five children each for 45 minutes daily with a Reading Recovery teacher. These children did not move on to Reading Recovery tutoring for various reasons: some reached average levels of reading performance with group instruction only and needed no further intervention, some remained in the group program during the entire first grade year because an opening in Reading Recovery was not available, and others scored too high to be eligible for Reading Recovery services.

Reading Recovery with Prior Experiences in Early Literacy Small-Group. The lowest-achieving child from the small-group program received one-to-one tutoring in Reading Recovery when an opening became available at a later time in the first grade year.

Research Questions and Results

Question #1. What proportions of low-achieving children in the project schools received Reading Recovery and small-group intervention programs?

Intervention services for a total of 231 children were analyzed. Of this number, 95 (41 percent) received Reading Recovery tutoring only, 93 (40 percent) received small-group early literacy program services only, and 43 (19 percent) received both small-group and Reading Recovery services. Based on these numbers, the 11 Reading Recovery teachers provided early intervention to an average of 21 low-achieving first grade children during the school year.

Question #2. What was the progress of children who participated in a small-group program and achieved average levels of reading performance without requiring Reading Recovery? Of the 93 children who received only small-group early literacy instruction, 28 children (30 percent) reached successful levels of reading achievement with an average of 48.5 lessons. Table 1 displays the progress of these students from entry to exit points in the small-group program.

Children who were selected for small-group literacy instruction generally entered the program with higher levels of item knowledge (as evidenced by measures 1-5) than children who were selected for individual tutoring in the Reading Recovery program, but were unable to integrate sources of information in text reading (as evidenced by measure 6). At exit from a small-group program, the children had attained successful levels of reading achievement, as evidenced by their ability to read at 90 percent accuracy or above on text level 19, which approximates a second grade reader.

It should be noted than the 28 children who were successfully released from the group program had originally met the criteria for entry to a Reading Recovery program—that is, they had been among the lowest-achieving readers in their first grade classrooms, although there had not been room for them in Reading Recovery. The fact that these children were brought up to grade level with only the small-group intervention enabled Reading Recovery teachers to focus one-to-one instruction on the lowest-achieving children.

Question #3. What was the progress of discontinued Reading Recovery children who participated in a small-group program prior to entering Reading Recovery?

Forty-three children received both the small-group program and Reading Recovery tutoring. Of these children, 24 (56 percent) were successfully discontinued from Reading Recovery after an average of 25 lessons. Table 2 shows the progress of the children on measures of Writing Vocabulary, Dictation, Text Reading Levels and mean number of lessons received in

Table 1
Children Who Reached Successful Levels of Literacy in Small-Group Literacy Program: Entry and Exit Mean Scores

		Mean Scores	
	Measures	**Entry**	**Exit**
1.	**Letter Identification (max = 54)**	50	54
2.	**Ohio Word Test (max = 20)**	03	19
3.	**Concepts About Print (max = 24)**	11	20
4.	**Writing Vocabulary (number of words written in 10 minutes)**	11	47
5.	**Dictation (max = 37)**	16	36
6.	**Text Reading Level (max = 24)**	01	19

n = 28 children on all measures, with exception of Concepts About Print, for which *n* = 24 children.

Early Literacy Group (ELG) and Reading Recovery (RR). It should be noted that children's exit data from the small-group program are used as entry data into the Reading Recovery program.

The data indicate that the small-group instruction these children received while waiting to enter the Reading Recovery program helped them acquire a writing vocabulary and knowledge of sounds within words. The reading and writing format of the small-group literacy program is structured to expose children to varied experiences for acquiring these early behaviors. Although a text reading level of 5 (preprimer) is below satisfactory performance for a self-extending system, the children's ability to read this level at 90 percent accuracy indicates some knowledge of the reading process. These data suggest that the increased rate of acceleration (25 lessons) of the children who went on to be successfully discontinued from Reading Recovery may have been facilitated by their prior participation in the small-group literacy program.

Question #4. Does participation in a small-group program for waiting list Reading Recovery children influence the rate of accelerated progress when children enter Reading Recovery at a later time in the year?

In order to answer this question, the rate of acceleration was calculated according to the mean number of lessons received by discontinued Reading Recovery children, with and without prior instruction in a small-group program. Of the total number of 95 children who received Reading Recovery services with no prior experiences in a small-group program, 72 (76 percent) discontinued from Reading Recovery with an average of 65 lessons. Generally, this group was comprised of first-round children. Of the total of 43 children who participated in the small-group program prior to receiving Reading Recovery services, 24 (56 percent) discontinued from Reading Recovery with an average of 25 Reading Recovery lessons. Further analysis indicated that small-group children received an average of 40 lessons in the group program prior to Reading Recovery; thus, their combined average number of small-group and Reading Recovery lessons (66) was almost the same as the average number of tutoring sessions (65) received by discontinued Reading Recovery-only children.

Table 2
Mean Scores of Discontinued* Reading Recovery Children with Prior Instruction in the Early Literacy Group Program

		Mean Scores		
Testing Periods	*n*	**WV**	**DIC**	**TRL**
Entry to ELG	24	09	11	01
Exit from ELG/Entry to RR	24	30	31	05
Discontinued* from RR	24	46	36	16

(Mean Number of Lessons: 41 in Early Literacy Group, Followed by 25 in Reading Recovery)

**Discontinued* refers to Reading Recovery children who have reached average levels of reading competence and have been returned to the regular classroom.
WV = Writing Vocabulary (words written in 10 minutes)
DIC = Dictation (highest possible score = 37)
TRL = Text Reading Level (16 approximates ending first grade reader; 24 approximates third grade reader)

Question #5. What was the progress of non-discontinued Reading Recovery children who participated in a small-group program prior to entering Reading Recovery?

Of the 43 children who entered the Reading Recovery program after first receiving small-group instruction, 19 children (44 percent) did not successfully discontinue. It is important to analyze the progress of this group of children from point of entry to exit in both programs. Table 3 displays these results.

In analyzing the data from non-discontinued Reading Recovery children who had received prior instruction in a small-group program, several interesting findings emerged. The results of this group of non-discontinued children were compared with a state random sample of 50 first grade children at the end of their first grade year. Random sample results indicate that the average first grade student was reading at a text level 12 at the end of the year, which approximates a beginning first grade reading series (see Dorn, 1993).

In the current study, seven children from the total population of 19 non-discontinued children scored at the average reading level of the state sample. However, the scores did not meet the high standards of Reading Recovery; and as a result, the children were not considered as successfully discontinued. Even among the remaining 12 children, notable progress was documented, with mean gains in writing vocabulary, dictation, and text reading ability.

Table 3

Mean Scores of Non-Discontinued* Reading Recovery Children with Prior Instruction in the Early Literacy Group Program

		Mean Scores		
Testing Periods	***n***	**WV**	**DIC**	**TRL**
Entry to ELG	19	05	07	00
Exit from ELG/Entry to RR	19	18	20	03
End of School Year in RR	19	32	30	08**

(Mean Number of Lesson: 42 in Early Literacy Group, Followed by 34 in Reading Recovery)

**Non-Discontinued* refers to Reading Recovery children who did not reach average levels of reading competence by the end of their Reading Recovery program.

**Text Reading Level 8 approximates the end of PP3 reader.

WV = Writing Vocabulary (words written in 10 minutes)

DIC = Dictation (highest possible score = 37)

TRL = Text Reading Level (16 approximates ending first grade reader; 24 approximates third grade reader)

Summary

The current study was designed to examine the effectiveness of a two-level intervention model that used Reading Recovery and small-group instruction for low-achieving children. The data was analyzed on 231 children from nine schools who participated in one of the intervention programs. Important findings from the study include the following:

- The combination of individual tutoring and small-group instruction enabled each Reading Recovery teacher to serve an average of 21 low-achieving children during the academic year.
- Of a total of 231 children served, 138 (60 percent) received one-to-one instruction in Reading Recovery at some point during their first grade year.
- Of the total number of 93 children who received small-group instruction, 28 (30 percent) reached average levels of reading performance without requiring Reading Recovery services.
- Of the 43 children who received small-group instruction and then went on to Reading Recovery, 24 (56 percent) were successfully discontinued at an average of only 25 lessons in Reading Recovery, as compared with an average of 65 lessons for discontinued Reading Recovery-only children. Thus, the time for these children to be discontinued from Reading Recovery was cut by more than 60 percent.
- Among the remaining 19 Reading Recovery children with prior small-group instruction, notable gains were made in all areas of reading, writing, and dictation tasks when compared with a state random sample of first grade students.

Conclusions

The results from this study must be interpreted with several cautions. First, it is important to recognize the complex nature of the reading process, which is influenced by cognitive, social, and cultural factors in the child's environment. In this study, children's scores on a variety of tasks served as a basis for assigning individual children to the most appropriate intervention program. However, the children's rate of accelerated progress in different programs is influenced by other factors, including the effectiveness of the Reading Recovery teacher's decision-making processes and the types of literacy opportunities provided to the children by the regular classroom teacher.

Second, it must be emphasized that Reading Recovery is the most effective program for the lowest-achieving first grade children (Pinnell, Lyons, & DeFord,1991). In discussing the powerful effects of individualized instruction for failing children as compared to small-group instruction, Clay (1994b) explains the difference:

> [Individualized instruction] allows for a revolutionary change in teaching, devising lessons which work out from things the child can already do, and not from the teacher's preselected programme sequence. When two or three children are taught in a group the teacher cannot make this change; she has to choose a compromise path, a next move for 'the group.' To get results with the lowest achievers the teacher must work with the particular (and very limited) response repertoire of a particular child using what he knows as the context within which to introduce him to novel things. (p. 8)

Findings from the current study support this notion. The proportion of children discontinued from the small-group literacy program could not equal to the high discontinuing rate of children from the Reading Recovery program.

However, the purpose of small-group instruction was to provide support for low-achieving children unable to receive Reading Recovery at a crucial time in their development of reading competence. The findings indicate that the small-group program enabled Reading Recovery teachers to provide timely support to large numbers of these children. Later in the year, when space opened for them in the Reading Recovery program, these children made accelerated progress and were discontinued in less than half the time required by Reading Recovery-only children.

As a bonus, about 30 percent of children participating in the small-group program reached average levels of reading performance without requiring individual tutoring, enabling Reading Recovery teachers to focus one-to-one instruction on the first grade children who needed it the most.

References

Clay, M. (1991). *Becoming literate: The construction of inner control.* Portsmouth, NH: Heinmenann.

Clay, M. (1993). *An observation survey of early literacy achievement.* Auckland: Heineman.

Clay, M. (1994a). *An observation survey of early literacy achievement.* Portsmouth, NH: Heinemann.

Clay, M. (1994b). *Reading Recovery: A guidebook for teachers in training.* Portsmouth, NH: Heinemann.

Cunningham, P., & Allington, R. (1994). *Classrooms that work: They can all read and write.* New York: Harper Collins.

Dorn, L. (1993). *A study on the rate of acceleration for Reading Recovery® children having prior experiences in a small-group literacy program* (Tech. Rep.). Little Rock: University of Arkansas at Little Rock.

Dorn, L., & Allen, A. (1994). *The Reading Recovery project: Year 3* (Tech. Rep.). Little Rock: University of Arkansas at Little Rock.

Goswami, U., & Bryant, P. (1990). *Phonological skills and learning to read.* East Sussex: Lawrence Erlbaum.

Hiebert, E., & Taylor, B. (1993). *Getting reading right from the start: Effective early literacy interventions.* Needham Heights, MA: Allyn & Bacon.

Pinnell, G., Lyons, C., & DeFord, D. (1991). *Studying the effectiveness of early intervention approaches for first grade children having difficulty in reading*. Columbus: The Ohio State University.

Zemelman, S., Daniels, H., & Hyde, A. (1994). *Best practice: New standards for teaching and learning in America's schools*. Portsmouth, NH: Heinemann.

Reprint

READING RECOVERY AND CHILDREN WITH ENGLISH AS A SECOND LANGUAGE

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LITERACY,
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THIS STUDY SETS OUT TO ANSWER THE QUESTION OF SUITABILITY AND long-term benefit of Reading Recovery for children who have English as a second language. Annual returns to the Mana Reading Recovery Centre (1986-1991) on the entry and exit data, and post-programme progress of ESOL and non-ESOL children are compared. Both groups of children continued to make progress in the three years after completing a programme. Questions are raised concerning the factors likely to enhance or inhibit subsequent progress.

Introduction

Reading Recovery is an early intervention, literacy programme designed to accelerate the most-at-risk readers and writers, from within the regular school population, to the average performance level of their peers, within a short space of time.

Any child turning 6 years old in the ordinary classroom, who is reading and/or writing at a lower level than their peers when measured by the Diagnostic Survey (Clay, 1985), renamed Observation Survey (Clay, 1993), is eligible for a Reading Recovery programme.

Reading Recovery children receive a daily half hour, individual lesson in reading and writing from a trained Reading Recovery teacher. This tuition is supplementary to their classroom reading and writing programme. It continues either until the child shows he or she can operate successfully in the average instructional group in their class without extra assistance or is referred to another agency for further help after a recommended maximum of twenty weeks.

Children are judged to have successfully completed their programme when they can read texts which the average child in the second year at their school can read (this will differ from school to school), and can write stories requiring help with only a few words. To ascertain an individual child's strengths and weaknesses an independent tester re-administers the Diagnostic/Observation Survey (Clay, 1985, 1993).

To ensure that children continue to achieve after successfully completing a Reading Recovery programme it is recommended that schools "be prepared to monitor their progress sensitively" for the next three years (Clay & Watson, 1982).

National data collected in December each year by the former New Zealand Department of Education, now the Ministry of Education, provide "an annual accountability check" (Clay, 1990) on the outcomes of the programme in New Zealand. Figures show that between 1984-1988, the programme was successful with an average of 96 percent of most-at-risk children who entered (Clay, 1990). Less than one percent of the total 6 year-old cohort were identified as needing extra specialist help beyond Reading Recovery (Clay, 1990; Clay & Tuck, 1991).

Research into the success of Reading Recovery in Australia (Wheeler, 1986), in the United States of America (Pinnell, DeFord, & Lyons, 1988; Smith-Burke & Jaggar, 1994) and in Surrey, England (Wright, 1992), shows that the programme also achieves its aims in very different education systems.

Follow-up studies of children one year later (Clay, 1980; Pinnell, et al., 1988; Iverson & Tunmer, 1992) and at least three years later (Clay & Watson, 1982; Pinnell, et al., 1988) show that the vast majority of children continue to progress appropriately with their peers after completing a Reading Recovery programme.

The non-exclusion policy of Reading Recovery means that any child regardless of ethnic group, language spoken, attendance, or potential is eligible for extra assistance. Given this non-exclusion policy, the success of different groups of children is a question of considerable importance (Glynn, Crookes, Bethune, Ballard, & Smith, 1989; Nicholson, 1989; Clay, 1990; Clay & Tuck, 1991).

A review of different subgroups within the 1988 New Zealand Reading Recovery entry population shows that it is not possible to predict ahead of time those children who will need more than the programme or those children who could be successfully excluded from receiving the programme (Clay & Tuck, 1991). The reviewers recommended, for example, that it would be ill-advised to establish a criteria for exclusion according to levels of achievement, as previously suggested by a Dunedin study (Glynn, et al., 1989).

In their 1982 follow-up research, Clay and Watson demonstrated that classroom levels reached and gains over time were similar for three groups in the Reading Recovery programme: for Maori, for Pacific Island, and for European children. This study did not identify the nature of the children's home language. Questions relating to the success and long-term benefit of the programme for children for whom English is a second language have not been addressed. Commonly expressed beliefs by some teachers and specialist educators (Watson, 1987) working with children who had English as a second language, are that these children would be less successful in Reading Recovery than their native English-speaking peers (and possibly should be excluded from the programme); that they would rely dominantly on grapho-phonemic cues at the expense of meaning and syntax; and that subsequent progress would be restricted by their limited oral language proficiency. The question of the necessity for a threshold of language proficiency before children can benefit from bilingualism is also a matter of debate in the literature (Cummins & Swain, 1986; Verhoeven, 1990; Edelsky, 1991). Whilst Wells (1981) queried the extent to which oral language is related to reading acquisition, other researchers equated deficient academic achievement (Oller, 1979), and *learning disability* (Vellutino, 1979) with deficient language proficiency. Labov (1970), on the other hand, rejected any direct relationship between language proficiency and failure, emphasizing the importance of sociolinguistic and sociocultural factors in academic achievement. Edelsky (1991), however, is highly critical of the *threshold hypothesis* (Cummins, 1979; Cummins & Swain, 1986) arguing that it ultimately disempowers minority language students, and that the research on which the theory is based merely measures *test-wiseness* and not language proficiency at all. The present report addresses the Reading Recovery non-exclusion issue, firstly by looking at the general progress in Reading Recovery for children who are learning English as a second language, and secondly by analyzing their continued progress after completion of the programme.

Method

Children

Phase 1 of the study involved all children from a mixed metropolitan-urban-rural population, including those for whom English was their second language, who received a Reading Recovery Programme in the Mana area during 1986 (n = 528), 1987 (n = 466), and 1988 (n = 509) (refer to Table 1). Phase 2 of the study involved three groups of Mana children (n = 96) who had successfully completed (discontinued) a Reading Recovery programme during 1986-1988.

The first group comprised ESOL (English for Speakers of Other Languages) children (n = 37) who remained in the area for the next three years after discontinuing and who had complete follow-up data (1986 [n = 8], 1987 [n = 13], and 1988 [n = 16]). Each child was paired with a non-ESOL pupil from the second group who met the above requirements, who completed a Reading Recovery programme in the same year, and whose discontinuing reading level and wherever possible entry level, were similar. Table 2 shows the average of paired groups. No comparison using *t*-tests for independent means was significant ($p > = .05$). In eight out of 37 instances it was possible to pair an ESOL child with a non-ESOL child in the same school. In all other cases children were paired with a child at a different school (Appendices 1-3).

For purposes of this research, children were defined as ESOL learners (English for Speakers of Other Languages) from teacher classification made in consultation with the family, which identified the children as speaking a language other than English as their first language. No

Table 1
End of Year Results for All Children in Reading Recovery During 1986-1988

	Total	Dis	Ref	CO	Left
Mana					
1986	528	347 (65.7%)	3 (0.6%)	148 (28%)	30 (5.6%)
1987	466	369 (79.1%)	2 (0.4%)	67 (14%)	28 (6.0%)
1988	509	353 (69.3%)	5 (0.9%)	121 (23%)	30 (5.9%)
Mana Averages					
1986 - 1988		71.0%	0.6%	22.0%	5.8%
National Averages					
1986-1988		62.0%	4.9%	27.8%	6.0%
1990		62.6%	5.1%	21.0%	5.5%

Note. *Dis* denotes those children who were successfully discontinued from the programme.
Ref indicates those children who did not meet the discontinuing criteria and were referred for further specialist help.
CO refers to those children who entered their programme toward the end of the school year and were carried over into the next year total.
Left refers to those children who left the school before completing their programme.

Table 2
Average Discontinuing Scores for Matched Pairs

Year		n	Book Level	BURT Score	Writing Score
1986	**ESOL**	8	19.75	21.13	45.5
	non	8	19.75	19.75	47.5
1987					
	ESOL	13	18.77	21.25	44.38
	non	13	18.92	20.15	49.08
1988					
	ESOL	16	18.13	20.00	50.44
	non	16	18.13	19.88	49.69

Note. t tests on all means showing no significant difference between the means, df =14, 24, 30, $p > .050$.

lowest achieving ESOL child was excluded from the programme. Children came into Reading Recovery with differing degrees of control over English. No standard assessment of their first language nor of English was made other than that of being able "to understand the instructions of the Diagnostic Survey" (Clay, 1979). First languages spoken by children in group one included: Samoan (25), Cook Island Maori (4), Toklauan (3), and there was one speaker of each of the following languages: Tongan, Laotian, Filipino, Italian, and Thai.

A further group of ESOL children (n = 22) who were discontinued but had incomplete follow-up data were also involved. It was not possible to find matched pairs for these children. There were a number of reasons for incomplete three-year data after discontinuing. These included: children leaving the school, children who were absent at the time of testing, children in a school where Reading Recovery was dropped for a year through teacher illness, and children who were discontinued in Term One who were followed up at the end of that year and the two subsequent years only.

Data Collection

Programme data. On entry to and exit from a Reading Recovery programme every child is administered the Diagnostic/Observation Survey (Clay, 1985, 1993) and the Burt (NZ revised 1981) Word Test, by trained personnel within the school setting. On entry to the programme this is done by the Reading Recovery teacher. On exit this is done by some other person skilled in administering these tests, such as the classroom teacher, the senior teacher in charge of junior classes, or the principal. The data for 1986-1988 were collated by the Reading Recovery tutor as part of regional and national data.

Follow-up data. Follow-up measures in reading and writing were administered by trained in-school personnel, and collected at the start of the third term in each of the three years after discontinuing. This formed part of each school's standard monitoring procedure.

Tests: Text reading. Running records were taken on materials which had been used in the children's instructional programme in the classroom. This included stories from the Ready to Read series and School Journal articles. The child's instructional level was identified as being the highest level text that he or she could read with 90 percent(+) accuracy. This sometimes necessitated children reading previously unseen material. The Reading Recovery leveling was used as it had been at entry and discontinuing—benchmarked against the Ready to Read series (Clay & Watson, 1982). Approximate reading ages were given to correspond to these levels (Appendix 4). In cases where children were reading School Journals, approximate reading ages were determined by the Elley noun count formula (Elley, 1967; Elley & Croft, 1989).

Word Identification. The Burt (NZ revised 1981) Test provided a comparison with previous Reading Recovery assessments.

Writing Vocabulary. A variety of writing assessments were used depending on the preference of the school. These included the Writing Vocabulary Test (Clay, 1985), the NZCER Spell-Write Word List, and the Peters, Burt, Schonnel, or Daniels and Diack spelling tests. None of the spelling tests were normed for New Zealand conditions. In 1989-1991, a large number of schools used the Daniels and Diack Spelling Test and it was possible to compare the achievements of 30 matched pairs at the point of their third year follow-up.

Results

Phase 1: The General Progress of Children in the Mana Area

Both ESOL and non-ESOL children successfully concluded their Reading Recovery programmes. A measure of average book level completed shows that statistically significant progress was made, beyond one chance in 1,000, by both groups over the duration of the programme (Appendix 1: ESOL $t = 35.63$, df = 72, $p < .001$; non-ESOL $t = 34.76$, df = 72, $p < .001$). There were no significant differences between ESOL and non-ESOL groups at discontinuation (Table 2) and both groups of children completed their programme within the recommended time frame. Referral data also supports this conclusion. Table 1 shows that ESOL children (n = 2) did not feature greatly in the numbers of those referred for specialist help in the Mana area (1986-1988). This represents 3.3 percent of all ESOL children (n = 59) in the study, which is lower than the national average referral rate of 4.95 percent for the same period. This suggests that in terms of discontinuing, the programme is achieving its aims for both children who have English as their first and children for whom English is a subsequent language.

Table 3 shows that subsequent to a Reading Recovery programme the vast majority of all discontinued children in the Mana area (1985-1991) continued to progress with their peers without requiring further specialist help (Ofsted Report, 1993). In 1991, of the 947 children followed up in that year, 900 were reading within 12 months of or above their chronological age when measured on text reading. A further 37 children who were reading 12 months below their chronological age, had maintained or increased their reading levels. Only ten children had dropped reading levels since previous testing.

Phase 2: Progress of Matched Pairs of ESOL and Non-ESOL Children

Follow-up: Text Reading. Table 4 shows that both groups of matched children continued to progress one, two, and three years after discontinuing, with no significant difference between the groups.

At the third year measure the ESOL children had an average chronological age of 9.7 years and non-ESOL children an average chronological age of 9.6 years. The average reading ages were 10.9 and 11.6 respectively. The large majority (above 76 percent) of both groups were reading at or beyond their chronological age on text reading at every checkpoint (Table 5). Three years after discontinuing, 31 (84 percent) ESOL and 34 (92 percent) non-ESOL children were in this category. Table 5 provides the number and percentage of children in matched pairs who were reading text at, above, or below their chronological age at each survey.

At the time of the third year follow-up more than 50 percent of children in both categories (ESOL = 2 [57 percent], non-ESOL = 26 [70 percent]) were reading material at a difficulty level 13+ months beyond their chronological age. This included an increasing number of children in both groups (ESOL = 10; non-ESOL = 20) who were reading more than two years beyond their chronological age.

Thirty-three ESOL and 32 non-ESOL children made continuous progress throughout the three years. A further three children in each group remained at the same level of text reading for two consecutive years. Only one ESOL child and two non-ESOL children dropped reading levels at one checkpoint before moving forward again.

Table 3

Follow-Up Study: Mana Reading Recovery Centre

Year	Number of children followed up	Maintained / Improved reading ability %	Refresher tuition %
1985	275	97.0	3.0
1986	489	99.2	0.8
1987	628	99.8	0.2
1988	661	99.4	0.6
1989	522	98.5	1.5
1990	742	99.6	0.4
1991	947	98.95	1.05

Table 4

Average Text Reading Age for ESOL and Non-ESOL at 1, 2, and 3-Year Follow-Up

	Entry	Dis		FU 1	FU 2	FU 3
	R/L	R/L	R/A	R/A	R/A	R/A
ESOL (N=37)	2.7	18.7	7.0	8.3	9.8	10.9
non-ESOL (N=37)	2.9	18.8	7.0	8.6	10.3	11.6

Note. R/L: refers to reading level as used in Reading Recovery.
R/A: refers to approximate reading age. (df = 72, $p > .05$).

Table 5 shows that at the three-year follow-up two ESOL children and two non-ESOL children were reading text seven to 12 months below their chronological age. This might still be considered to be within the normal reading-age-band for class placement. A further four ESOL children and one non-ESOL child had text reading ages more than 13 months but less than 24 months below their chronological age.

Follow-up: Word Identification. Analysis of ESOL and non-ESOL children's ability to read words on the Burt Word Reading Test shows that the children in both groups made progress whilst in the programme and continued to do so after leaving it. There were no significant differences between the average raw scores of the two groups at any checkpoint (Table 6). Whilst the children in both groups continued to improve in word reading skills, the rate at which this happened tended to decrease for some children in both groups over time (Table 7).

At the third checkpoint only 25.7 percent of the total group were reading isolated words with achievement ages at or above their chronological ages. This was in contrast to the children's ability to read increasingly difficult text with above 90 percent(+) accuracy (Table 5).

Table 6 shows that children in both groups who were discontinued with average Burt scores at or below 20 were more likely to start falling behind their chronological age as measured by the Burt equivalent age band (EAB) at the first or second checkpoint. Twelve ESOL children, with an average Burt score of 26 at discontinuing were closer to their chronological age on word reading at all checkpoints than any other group of children.

Table 5

Text Reading Ages Relative to Chronological Ages For ESOL and Non-ESOL Children at 1, 2, and 3-Year Follow-Up

		FU 1		FU 2		FU 3	
13+ mths above CA	**ESOL**	11	(29.7%)	14	(37.8%)	21	(56.8%)
	Non-ESOL	13	(35.1%)	22	(59.5%)	26	(70.2%)
7-12 mths above CA	**ESOL**	7	(18.9%)	5	(13.5%)	5	(13.5%)
	Non-ESOL	7	(18.9%)	6	(16.2%)	3	(8.1%)
+6 mths	**ESOL**	5	(13.5%)	6	(16.2%)	1	(2.7%)
	Non-ESOL	14	(37.8%)	2	(5.4%)	0	(0.0%)
CA*							
-6 mths	**ESOL**	5	(13.5%)	3	(8.1%)	4	(10.8%)
	Non-ESOL	1	(2.7%)	3	(8.1%)	5	(13.5%)
7-12 mths below CA	**ESOL**	7	(18.9%)	5	(13.5%)	2	(5.4%)
	Non-ESOL	2	(5.4%)	4	(5.4%)	2	(5.4%)
13+ mths below CA	**ESOL**	2	(5.4%)	4	(10.8%)	4	(10.8%)
	Non-ESOL	0	(0.0%)	2	(5.4%)	1	(2.7%)

*Children who are in the CA band are those who are able to read text within a reading age range from between 6 months above to 6 months below their chronological age.

Table 6

Average Raw Score On BURT Word Reading Test For ESOL and Non-ESOL at 1, 2, and 3-Year Follow-Up

	Entry	Dis	FU 1	FU 2	FU 3
ESOL (N=37)	4.5	20.6	29.4	37.4	44.4
Non-ESOL (N=37)	4.6	20.0	30.4	38.4	46.7

df = 72, $p > .05$

Follow-up: Writing. How did ESOL and non-ESOL children compare in their ability to write words after completing a Reading Recovery programme?

The retrospective nature of this study made it difficult to show the same change over time for the matched pairs in writing because schools were using different assessments. However, the Daniels and Diack spelling test was used for 30 (81 percent) matched pairs at the third checkpoint.

Table 7

BURT Scores Relative to Chronological Age for ESOL and Non-ESOL Children at 1, 2, and 3-Year Follow-Up

		FU 1	FU 2	FU 3
Within 12 months and above	**ESOL**	23	18	11
	Non-ESOL	29	19	16
12 months or more below	**ESOL**	14	19	26
	Non-ESOL	8	18	21

Although this test was not normed for New Zealand conditions, and consequently data cannot be related to a New Zealand age equivalent, it is interesting to notice the similarity between ESOL and non-ESOL children's ability to spell words three years after completing Reading Recovery. Table 8 shows that the average raw score and the range *n* scores were almost identical for the two groups. The Daniels and Diack equivalent spelling ages for the two groups give the average spelling age for the ESOL group as 8.3 (CA 9.7), and for the non-ESOL group as 8.2 (CA 9.6).

Follow-up: Un-Matched ESOL Children. Although it was not possible to pair a further 22 ESOL children because of the incomplete follow-up data, it was possible to apply similar criteria to the data available.

Analysis of these data shows that the progress of ESOL children in this second category tended to follow a similar pattern to that of the children in the paired study in both reading and writing. For example, the data collected on 13 children at the second checkpoint, and on ten at the third, (six of whom were represented at both checkpoints), show that these ESOL children continued to make similar progress to the matched pairs in text reading after discontinuing.

All 13 children at Follow-Up 2, and nine out of ten children at Follow-Up 3 were reading within 12 months of or above their chronological age. One of the children who was reading within 12 months of his chronological age at the second checkpoint, a year later was reading two years below, despite having made some progress in that 12 month period. Pinnell et al. (1988) refer to children who score *at the low end* and *yet show the necessary evidence of effective reading strategies*.

Table 8

Lowest, Highest, and Average Spelling Score for ESOL and Non-ESOL Children at 3-Year Follow-Up

		FU 3	Range
ESOL	(n=30)	28.9	16-40
Non-ESOL	(n=30)	28.2	16-38

Table 9

ESOL and Non-ESOL Children Grouped According to Burt Raw Score at Discontinuing

Dis Score	Dis Av	FU 1 Av	FU 2 Av	FU 3 Av
0-18				
ESOL (n=13)				
CA	6.7	7.9	8.9	9.9
EAB	—	6.04 - 6.10	7.00-7.06	7.08-8.02
Score	15 (10-18)	26 (16-36)	34 (23-51)	42 (27-62)
Non-ESOL (n=12)				
CA	6.3	7.7	8.7	9.7
EAB	—	6.07-7.01	7.01-7.07	8.01-8.07
Score	16 (14-18)	29 (19-40)	35 (27-51)	47 (29-72)
19-20				
ESOL (n=9)				
CA	6.4	7.8	8.8	9.8
EAB	5.10-6.04	6.04-6.10	6.09-7.03	7.03-7.09
Score	20 (19-20)	26 (22-29)	31 (27-41)	37 (29-49)
Non-ESOL (n=8)				
CA	6.1	7.3	8.3	9.3
EAB	—	6.09-7.03	7.04-7.10	8.02-8.08
Score	19 (19-20)	31 (22-46)	38 (28-61)	48 (26-73)
21-22				
ESOL (n=3)				
CA	6.4	7.6	8.6	9.6
EAB	5.11-6.06	6.08-7.02	7.06-8.00	7.11-8.05
Score	21 (21-22)	30 (21-37)	40 (34-45)	45 (39-55)
Non-ESOL (n=8)				
CA	6.8	7.6	8.6	9.6
EAB	5.11-605	6.07-7.01	7.05-7.11	8.00-8.06
Score	21 (21-22)	29 (20-42)	39 (28-64)	46 (34-75)
23-30				
ESOL (n = 12)				
CA	6.5	7.6	8.6	9.6
EAB	6.04-6.10	7.02-7.08	8.00-8.06	8.06-9.00
Score	26 (23-30)	36 (27-50)	46 (31-68)	52 (39-75)
Non-ESOL (n=9)				
CA	6.6	7.7	8.7	9.7
EAB	6.02-6.08	6.11-7.05	7.05-7.11	8.01-8.07
Score	24 (23-27)	33 (27-38)	39 (26-50)	47 (33-66)

*EAB = Equivalent Age Band (Burt NZ Rev)
CA = Chronological Age.

Discussion

This study set out to answer the question of the suitability and long-term benefit of Reading Recovery for children who have English as their second language. The study confirms findings of previous longitudinal studies (Clay & Watson, 1982; Pinnell, DeFord, & Lyons, 1988) that children are successful in and continue to succeed after Reading Recovery without further assistance, and that these findings are applicable to ESOL children. ESOL and non-ESOL children demonstrated that they were able to continue to learn. The vast majority of ESOL and non-ESOL children exceeded programme expectations after discontinuing, especially on text reading.

All children in both groups were successful at reading words in text but some were less able to read and write words in isolation. This difference may be the artifact of different norming procedures. However, it may also be related to the Reading Recovery teaching (Tunmer, 1992), or to subsequent classroom instruction (Pinnell, et al., 1988), including possibly the amount of exposure to print after discontinuing (Stanovich, 1992, 1994; Juell, 1988).

Various writers have argued that phonological awareness or phonological sensitivity skills are important indicators of early reading acquisition (Clay, 1991; Stanovich, 1987, 1992; Tunmer & Chapman, 1991; Yopp, 1992). Tunmer (1992) argued that phonological awareness is the prime precursor of phonological recoding, which in turn is "primarily responsible for the development of context free word recognition ability," which in turn is "primarily responsible for the development of the ability to read connected text." If this is so, it appears that both groups of children surveyed in this current study developed the necessary skills for reading/writing acquisition whilst in a Reading Recovery programme.

It might be argued (Nicholson, 1986) that some children were lacking in phonological recoding skills after graduating from the Reading Recovery programme and that this might account for their subsequently lower scores in reading isolated words, compared with their success on text reading. Consequently, it may be for these children that continued progress in reading was due to their reliance on context cues. This cannot be discounted. However, if "reading connected text is the goal of reading instruction" (Tunmer, 1992), the question must be asked whether they knew sufficiently about how words work for them to make continued post-Reading Recovery progress on connected text. It appears that both ESOL and non-ESOL children were well able to achieve and maintain this goal.

Clay (1991) stresses that phonological information is only one of a number of key sources of information used by the reader of text, others being semantic, syntactic, and visual information. This is particularly interesting because it seems that the ESOL children in this study as well as their non-ESOL pairs were using semantic and syntactic cues to supplement their grapho-phonemic analysis of text.

In the *dual-process* model of mature reading as summarized by Henderson (1984) and discussed by Clay (1991), there are possibly two major routes by which mature readers analyze words. In the first, the reader takes a lexical route which enables them to search for the semantic, phonological, and orthographic identities of a word; and in the second uses spelling-sound translation rules without recourse to the lexicon. It may be that, after discontinuing, the ESOL and non-ESOL children in this study were well able to take the lexical route using all sources of information, but found the less rich spelling-sound translation route more difficult.

Perhaps it highlights yet again the vital importance of recognizing reading as a meaningful activity that forces the reader to draw on multiple sources of information in the process of reading continuous text (Clay, 1966, 1982, 1985, 1991; Edelsky, 1991; Gaffney & Anderson, 1991; Gibson & Levin, 1975; Goldenberg, 1991; Goodman & Golasch, 1980; Haber, 1978; Imlach, 1968; McNaughton, 1983; Smith, 1978; Williams & Clay, 1982).

This present study shows that although it might be appropriate to be more conservative on Burt scores at discontinuing and to bring children's analysis of isolated words to a level commensurate with their text reading age, there is no clear consistent relationship between word reading score at discontinuing and a child's subsequent ability to analyze words in isolation. However, there are indications that some children in both groups might have benefited from further class instruction on word analysis after discontinuing, at the multi-syllabic word level. This assessment agrees with Verhoeven's (1990) and Frederiksen and Kroll's (1976) findings. Such words start to occur at the 7.06-8.00 equivalent age band (Burt, NZ Rev, 1981). The average text reading age at which children in this study were discontinued was seven years.

Regarding the amount of exposure to print after discontinuing, Stanovich (1992, 1994) suggests that apart from the necessity of teaching children spelling-sound correspondences, exposure to print allows the *induction of spelling-sound correspondences* and the development of vocabulary. Other researchers have highlighted the importance of exposure to print as a key variable in the development of children's vocabularies (Hayes & Ahrens, 1988; McNaughton, 1981; Nagy & Anderson, 1984). It may be that reading words in isolation, as measured by the Burt Test, reflected children's control over vocabulary and may raise questions about the amount of reading done after leaving a Reading Recovery programme.

Another aspect to consider in this regard is that of the reciprocal nature of reading and writing. Stanovich (1992) also reported that groups of children and adult university students who were high in print exposure were significantly superior in spelling performance.

It is also interesting to speculate on the impact of the spelling performance of all children (including those who did not receive a Reading Recovery programme) of the emphasis in New Zealand school programmes in the 1980s on *process writing*. This latter trend in classroom instruction may have led to a general decrease in the teaching of spelling. It may be that the children in this study in particular, or together with other children, would benefit from further careful word work in the middle and upper classes. This would need further investigation.

On another matter, some researchers have argued for a *threshold* level of competence in either their first or subsequent language before children can benefit cognitively from bilingualism (Cummins, 1979; Cummins & Swain, 1986; Verhoeven, 1990). If this is valid, a limitation of the present retrospective study is that no formal measure of either group's control of language was taken. It may be that all the children (non-ESOL and ESOL) had sufficient control of English to enable them to respond appropriately to instruction despite teachers' frequently expressed beliefs to the contrary (Watson, 1987). On the other hand, it may be that the nature of the instruction facilitated language development in the context of reading and writing meaningful text (Edelsky, 1991). These questions need further study.

It is worth commenting on an aspect of Reading Recovery that has been well documented in the literature and highlighted by this study (Clay, 1979, 1985; Clay & Watson, 1982; Clay & Tuck, 1991; Pinnell, Fried, & Estice, 1990; Smith, 1986). It concerns the individual nature of every child's programme. Although every ESOL child with complete three-year follow-up data was carefully matched with a non-ESOL child, it was not possible to do this more closely than by reading level at discontinuing, and seldom with children from the same school. Analysis of other aspects of the children's entry, exit, and follow-up data show how individually different they were.

Previous research (Clay & Watson, 1982) had found that the rate of children's post Reading Recovery progress also varied, and this was born out in the present study. The authors in the 1982 study had hypothesized as to the factors likely to influence children's subsequent progress, including absenteeism, home and community factors, unsatisfactory instruction, and illness. Follow-up research in the Mana area (Smith, 1987, 1988) discussed in the Ofsted Report (1993) showed the factors involving subsequent progress. Keeping in mind that these children were the lowest achievers in reading and writing on entry to Reading Recovery, it might be reasonable to anticipate that they would be the most likely to be thrown by subsequent adverse circumstances. Robinson (1989) addressed the questions of "facilitative and inhibiting features in . . . school contexts" that might impact children's learning, and Pinnell et al. (1988) refer to "extraordinarily negative school environments" in relation to children's subsequent progress after Reading Recovery. Given the high success rate of ESOL and non-ESOL children during and post Reading Recovery delivery, it might be useful to identify those factors that enhance or inhibit continued success for these children.

Appendix 1

Reading Levels at Entry and Discontinuing of Pairs (Reading Recovery Levels Benchmarked Against the Ready to Read)

Year	Children		Entry		Discontinuing	
	ESOL	NON	ESOL	NON	ESOL	NON
(n = 8)	*SS	SM	0	0	19	19
	CS	RH	0	5	18	18
	*JR	WH	4	2	19	19
	ET	JTH	3	4	18	18
	AG	NS	4	5	21	21
	LT	NMc	1	4	21	21
	CT	SMc	4	1	24	24
1987 (n = 13)	*TF	TA	4	12	19	19
	*TT	KP	7	5	20	20
	*RT	DA	4	2	19	19
	GE	JF	3	2	20	20
	JC	MO	1	1	15	16
	RE	NA	4	0	17	17
	JB	MF	4	4	20	20
	KT	LMc	2	2	19	20
	LM	PB	4	4	20	20
	*EF	AH	5	1	18	18
	MM	GT	2	1	19	19
	TT2	SB	5	5	19	19
	*WJ	MK	4	4	20	20
1988 (n = 16)	FU	KM	0	1	19	19
	MM2	JH	2	1	20	20
	SA	AB	3	4	18	18
	*TTu	CK	2	2	16	16
	AK	MB	3	3	21	21
	TS	TH	3	2	16	16
	PF	WG	0	1	17	17
	TTu2	LT	9	10	18	18
	*VY	JT	0	1	17	17
	FA	GB	0	0	19	19
	TF	MP	1	1	17	17
	LL	TKMc	3	1	18	18
	MF	DK	0	1	20	20
	MI	KH	3	4	18	18
	JK	HA	3	4	18	18
	PT	CJ	5	4	18	18

(*both children were at the same school) (n = 37) mean = 2.76 2.89 18.73 18.78. sd = 2.10 2.54 1.68 1.64 ESOL $t = 35.63$, df = 72, $p < .001$; Non-ESOL $t = 34.76$, df = 72, $p < .001$ Statistically significant progress was made by both groups when measured by average book level completed.

Appendix 2

Burt (N.Z. Rev. 1981) Reading Score at Entry and Discontinuing of Pairs.

Year	Children		Entry		Discontinuing	
	ESOL	NON	ESOL	NON	ESOL	NON
1986	AT	MA	0	4	18	18
(n = 8)	*SS	SM	2	2	20	24
	CS	RH	2	5	20	20
	*JR	WH	3	3	10	19
	ET	JTH	4	5	15	19
	AG	NS	6	5	28	14
	LT	NMc	7	8	28	23
	CT	SMc	12	5	30	21
1987	*TF	TA	8	10	25	21
(n = 13)	*TT	KP	15	8	24	15
	RT	DA	7	5	15	24
	GE	JF	4	8	20	24
	JC	MO	3	0	21	22
	RE	NA	4	2	18	15
	JB	MF	1	7	20	19
	KT	LMc	4	1	19	21
	LM	PB	1	3	18	15
	*EF	AH	8	2	25	15
	MM	GT	3	2	18	25
	TT2	SB	10	6	24	19
	*WJ	MK	3	6	28	27
1988	FU	KM	0	1	13	16
(n = 16)	MM2	JH	2	0	17	19
	SA	AB	9	3	25	18
	*TTu	CK	1	4	19	22
	AK	MB	6	5	17	23
	TS	TH	5	4	23	18
	PF	WG	0	2	16	20
	TTu2	LT	12	14	22	25
	*VY	JT	3	1	20	17
	FA	GB	5	0	23	21
	TF	MP	3	2	21	17
	LL	TKMc	2	0	18	16
	MF	DK	3	2	29	24
	MI	KH	0	7	20	21
	JK	HA	4	5	20	22
	PT	CJ	4	8	17	19

(*both children were at the same school)

Appendix 3

Writing Vocabulary Scores at Entry and Discontinuing of Pairs
Year Children Entry Discontinuing

Year	Children		Entry		Discontinuing	
	ESOL	NON	ESOL	NON	ESOL	NON
1986	AT	MA	1	12	41	62
(n = 8)	*SS	SM	4	4	40	39
	CS	RH	9	11	44	33
	*JR	WH	2	4	45	54
	ET	JTH	3	13	41	42
	AG	NS	11	9	46	61
	LT	NMc	13	13	55	37
	CT	SMc	15	11	52	52
1987	*TF	TA	13	21	44	48
(n = 13)	*TT	KP	16	8	37	53
	RT	DA	8	6	42	43
	GE	JF	9	14	46	48
	JC	MO	6	3	42	40
	RE	NA	7	4	45	44
	JB	MF	4	13	50	58
	KT	LMc	8	4	45	52
	LM	PB	5	8	38	42
	*EF	AH	14	3	46	36
	MM	GT	5	3	41	66
	TT2	SB	22	15	45	49
	*WJ	MK	17	19	56	59
1988	FU	KM	0	4	45	44
(n = 16)	MM2	JH	4	2	52	42
	SA	AB	22	10	42	46
	*TTu	CK	3	7	60	37
	AK	MB	8	13	56	52
	TS	TH	11	7	50	61
	PF	WG	1	2	42	41
	TTu2	LT	14	18	48	52
	*VY	JT	4	7	53	59
	FA	GB	6	2	62	54
	TF	MP	5	5	57	49
	LL	TKMc	9	2	62	50
	MF	DK	4	4	54	48
	MI	KH	3	13	34	54
	JK	HA	6	13	46	56
	PT	CJ	10	22	44	50

(*both children were at the same school)

Appendix 4

Reading Recovery Inservice Course Reading Book Scale

Reading Recovery Level	(Approximate Reading Age)	Indicated by new Ready to Read colour code
26		
25	8.5 - 9.0	
24		
23	8.0 - 8.5	
22		
21	7.5 - 8.0	Dark Yellow
20		
19	7.0 - 7.5	Purple
18		
17	6.5 - 7.0	Blue
16		
15	6.0 - 6.5	Orange
14		
13		Green
12		
11		
10		Dark Blue
9		
8		
7		Yellow
6		
5		
4		Red
3		
2		
1		Magenta
0		Dictated Text

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References

Clay, M.M. (1966). *The reading behaviour of five year old children.* Unpublished Ph.D. thesis, printed in Clay, 1982.

Clay, M.M. (1979). *The early detection of reading difficulties.* Auckland: Heinemann.

Clay, M.M. (1980). Reading Recovery: A follow-up study. *New Zealand Journal of Educational Studies, 15,* 137-135 (Reprinted in Clay, 1982).

Clay, M.M. (1982). *Observing young readers: Selected papers.* Exeter, NH: Heinemann.

Clay, M.M. (1985). *The early detection of reading difficulties* (3rd ed.). Auckland: Heinemann.

Clay, M.M. (1990). The Reading Recovery programme, 1983-1988: Coverage, outcomes and education board district figures. *New Zealand Journal of Educational Studies, 25*(1), 61-70.

Clay, M.M. (1991). *Becoming literate: The construction of inner control*. Auckland: Heinemann.

Clay, M.M. (1993). *An observation survey of early literacy achievement*. Auckland: Heinemann.

Clay, M.M., & Tuck, B. (1991). *A study of Reading Recovery subgroups: Including outcomes for children who did not satisfy discontinuing criteria*. Report to The Ministry of Education, Wellington.

Clay, M.M., & Watson, B. (1982). *The success of Maori children in the Reading Recovery programme*. Report to the Director of Research, Department of Education, Wellington.

Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Review of Educational Research, 49*, 222-225.

Cummins, J., & Swain, M. (1986). *Bilingualism in education*. London and New York: Longman.

Edelsky, C. (1991). *With literacy and justice for all: Rethinking the social in language and education*. London: The Falmer Press.

Elley, W.B. (1967). Estimating the difficulty level of reading material. *Education, 16*(9), 3-11.

Elley, W.B., & Croft, A.C. (1989). *Assessing the difficulty of reading materials: The noun frequency method* (Rev. Ed.). N.Z. Council for Educational Research.

Frederiksen, J.R., & Kroll, J.F. (1976). Spelling and sound: Approaches to the internal lexicon. *Journal of Experimental Psychology: Human Perception and Performance, 2*, 361-379.

Gaffney, J.S., & Anderson, R.C. (1991). *Two tiered scaffolding: Congruent processes of teaching and learning* (Technical Rep. 523). Center for Study of Reading: University of Illinois at Urbana-Champaign.

Gibson, E.J., & Levin, H. (1975). *The psychology of reading*. Cambridge: MIT Press.

Glynn, I., Crookes, I., Bethune, N., Ballard, K., & Smith, J. (1989). Reading Recovery in context. *Report To Research Division Ministry of Education*. Wellington.

Goldenberg, C. (1991). Learning to read in New Zealand: The balance of skills and meaning. *Language Arts, 68*, 555-562.

Goodman, K.S., & Gollasch, F.V. (1980). Word omissions: Deliberate and non-deliberate. *Reading Research Quarterly, 1*, 6-30.

Haber, R.N. (1978). Visual perception. *Annual Review of Psychology, 29*, 31-59.

Hayes, D.P., & Ahrens, M. (1988). Vocabulary simplification for children: A special case of "motherese"? *Journal of Child Language, 15*, 395-410.

Henderson, L. (1984). *Orthographies and reading*. Hillsdale, NJ: Lawrence Erlbaum.

Imlach, R.H. (1968). Juncture, pitch and stress as reading behaviour variables. Unpublished MA thesis. In M.M. Clay (1982), *Observing young readers: Selected papers*. Exeter: Heinemann.

Iverson, A.J., & Tunmer, W.E. (1992). Phonological processing skills and the Reading Recovery programme. *Journal of Educational Psychology, 85*(1), 121-126.

Juell, C. (1988). Learning to read and write: A longitudinal study of 54 children from first through fourth grades. *Journal of Educational Psychology, 80*, 437-447.

Labov, W. (1970). *The study of nonstandard English*. Champaign, IL: National Council of Teachers of English.

McNaughton, S. (1981). Becoming an independent reader: Problem solving during oral reading. *New Zealand Journal of Educational Studies, 16*(2), 77-185.

McNaughton, S. (1983). How effective are proficient six-year olds in solving words in context? *New Zealand Journal of Educational Studies, 18*(1), 59-68.

Nagy, W.E., & Anderson, R.C. (1984). How many words are there in printed school English? *Reading Research Quarterly, 19*, 304-330.

Nicholson, T. (1986). Reading is not a guessing game: The great debate revisited. *Reading Psychology, 7*, 197-210 (reprinted in *Set, 2* 1986. Item 13 using the title "Good readers don't guess").

Nicholson, T. (1989). Research note: A comment on Reading Recovery. *New Zealand Journal of Educational Studies, 24*(1), 95-97.

Ofsted. (1993). *Reading Recovery in New Zealand: A report from the Office of Her Majesty's Chief Inspector of Schools*. London: HMSO.

Oller, J.W., Jr. (1979). *Language tests at school: A pragmatic approach*. London and New York: Longman.

Pinnell, G.S., DeFord, D.E., & Lyons, C.A. (1988). *Reading Recovery early intervention for at-risk first graders*. Arlington, VA: Educational Research Service.

Pinnell, G.S., Fried, M.D., & Estice, R.M. (1990, January). Reading Recovery: Learning how to make a difference. *The Reading Teacher*, 282-295.

Robinson, V. (1989). Some limitations of systemic adaptation: The implementation of Reading Recovery. *New Zealand Journal of Educational Studies, 24*(1), 35-45.

Smith, F. (1978). *Understanding reading: A psycholinguistic analysis of reading and learning to read* (2nd ed.). New York: Holt, Rinehart and Winston.

Smith, P.E. (1987). *Mana Reading Recovery follow-up report*. Unpublished end-of-year report, 1987.

Smith, P.E. (1988). *Mana Reading Recovery follow-up report*. Unpublished end-of-year report, 1988.

Smith J. (1986). Reading Recovery in Central Victoria: What we have learnt. *Australian Journal of Reading, 9*(4), 201-208.

Smith-Burke, M.T., & Jaggar, A.M. (1994). Implementing Reading Recovery in New York: Insights from the first two years. In E.H. Hiebert & B.M. Taylor (Eds.), *Getting reading right from the start* (pp. 63-84). Boston: Allyn and Bacon.

Stanovich, K.E. (1987). Perspectives on segmental analysis and alphabetic literacy. *European Bulletin of Cognitive Psychology, 7*(5), 514-519.

Stanovich, K.E. (1992). *Differences in reading acquisition: Causes and consequences*. Keynote address to the 8th New Zealand Conference on Reading.

Stanovich, K.E. (1994). Romance and reality. *The Reading Teacher, 47*(4), 280-291.

Tunmer, W.E., & Chapman, J.W. (1991). *An investigation of language-related and cognitive-motivational factors in beginning reading achievement* (Research proposal). Educational Research and Development Centre, Massey University.

Vellutino, F.R. (1979). *Dyslexia: Theory and research*. Cambridge, MA: MIT Press.

Verhoeven, L.T. (1990). Acquisition of reading in a second language. *Reading Research Quarterly, 25*(2), 90-114.

Watson, B. (1987). Conversation with an ESOL educator. Unpublished letter. Mana Centre.

Wells, C.G. (1981). Learning through interaction: *The study of language development*. Cambridge: Cambridge University Press.

Wheeler, H. (1986). *Reading Recovery: Central Victorian field trials 1984*. Bendigo: Bendigo College of Advanced Education.

Williams, B., & Clay, M.M. (1982). The reading behaviour of children in standard one. In Clay, M.M. *Observing young readers:* Selected papers. Exeter: Heinemann.

Wright, A. (1992). Evaluation of the first British Reading Recovery programme. *British Educational Research Journal, 18*(4), 351-368.

Yopp, H.K. (1992). Developing phonemic awareness in young children. *The Reading Teacher, 45*(9), 696-703.

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ERRATA

The following items were printed inaccurately in Noel Jones' article, Learning to Read: Insights from Reading Recovery, in Literacy, Teaching and Learning, Volume 2, Number 1. Our apologies to the author and the readers.

p. 50: Heading should read: *Maintaining a Focus on Meaning is Always Important.*

p. 44, line 2: The word *diachronically* was substituted for *synchronically*.

p. 52, second paragraph from the bottom: The second occurrence of the words, *these debates more productively by changing the focus of*, should be deleted.

p. 53, principle #6: The word *letter-sound* was omitted. It should read: *Children do learn to use letter-sound associations.*

LITERACY, TEACHING AND LEARNING

An International Journal of Early Literacy

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Literacy, Teaching and Learning is a scholarly journal established to provide an interdisciplinary forum on issues related to the acquisition of language, literacy development, and instructional theory and practice. The journal will publish original contributions that inform the construction of knowledge in children and teachers, teaching methodology, and public policy. Authors are expected to pursue a variety of points of view in a critical and readable style so that practitioners, policymakers, and researchers can enter into a reflective dialogue on educational issues.

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This journal has been developed to provide a forum for communication among members of the Reading Recovery Council of North America and with professionals from a wide variety of disciplines. The journal has an international focus which encourages contributions by individuals with similar interests and research agendas working throughout the world. It is believed that this multidisciplinary and global perspective can make a positive contribution to the research literature. The Reading Recovery Council of North America, serving children in Canada and the United States, hopes to promote the continued engagement of those who work in Reading Recovery with their colleagues in related fields. The journal is a vehicle of communication that will disseminate difficult to obtain research and commentary, establish a network of individuals doing parallel research, and serve as a forum for ongoing discussion of issues related to literacy, teaching, and learning.

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TABLE OF CONTENTS

PHONICS AND POLITICS: "SOUNDING OUT" THE CONSEQUENCES
Noel K. Jones
3

A VYGOTSKIAN PERSPECTIVE ON LITERACY ACQUISITION: TALK AND ACTION IN THE CHILD'S CONSTRUCTION OF LITERATE AWARENESS
Linda Dorn
15

A NEW NATIONAL ALLIANCE: SPECIAL EDUCATION AND READING RECOVERY
David J. Moriarty
41

REPRINT
EARLY INTERVENTION IN CHILDREN WITH READING DIFFICULTIES: AN EVALUATION OF READING RECOVERY AND A PHONOLOGICAL TRAINING
Kathy Sylva and Jane Hurry
49

THE MISCHIEF OF THE LOST LESSON: AN ANALYSIS OF THE SOURCES OF DISCONTINUITY IN READING RECOVERY SERVICES
Lee Skandalaris and Frederica C. Frost
69

PEDAGOGICAL REASONING: UNDERSTANDING TEACHER DECISION MAKING IN A COGNITIVE APPRENTICESHIP SETTING
Cynthia B. Elliott
75

FIRST AND SECOND ROUND READING RECOVERY: WHAT DIFFERENCE DOES IT MAKE FOR DISCONTINUATION AND PROGRAM LENGTH?
Anne Rhodes-Kline
93

This issue ends the term of founding editors Adria F. Klein and Stanley L. Swartz. The Reading Recovery Council of North America expresses its gratitude for their leadership in the development of *Literacy, Teaching and Learning*.

38

PHONICS AND POLITICS: "SOUNDING OUT" THE CONSEQUENCES

NOEL K. JONES
University of North Carolina, Wilmington

*LITERACY,
TEACHING AND
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BILLS HAVE BEEN INTRODUCED INTO THE LEGISLATURE OF SEVERAL STATES recently requesting that intensive, systematic phonics be the primary mode of instruction in the primary grades of all public schools. In North Carolina, such a law was passed in the House (NC HB917, 1995) and resulted in strong language favoring systematic phonics in an omnibus education bill that passed both houses (NC Chapter 716, SB1139). In Ohio, legislation has put more teeth into an existing bill. Legislation similar to the North Carolina Bill has also been introduced in several other states with mixed results. In some states, a revision of state school standards is being used to bring a stronger emphasis to phonics in the early grades.

The response of educators to these initiatives has varied widely. The majority seem to view these efforts with some concern but have not voiced their reservations. Only a few have offered strong vocal opposition or support. In general, however, most educators have tended to treat these events rather lightly. They assume that reasonable legislators know enough about education to defeat such bills or they assume that professional organizations and lobbyists will carry the responsibility of responding to these proposals.

The tendency to dismiss or overlook these legislative proposals is both misguided and dangerous for at least three reasons. First, although these political initiatives may not have the support of the majority of parents and teachers, they seem to emanate from a vigorous, organized, politically astute minority. To ignore or dismiss these efforts is dangerous because the advocates are probably much better at politics than educators, either individually or collectively.

A second reason that we need to pay attention to these proposals is that their acceptance by so many legislators and lay persons suggests some rather widespread dissatisfaction among the public with the state of literacy education in the public schools. If this dissatisfaction is not adequately addressed, external initiatives to change and/or control the schools will find fertile soil. If schools are producing students who cannot read and write at acceptable levels, then it is our professional responsibility to make strong efforts to improve. Dissatisfaction is also an indication that teaching practices may be in conflict with traditional beliefs and values about teaching and learning. If so, schools need to educate the public and in doing so present a different image and attitude to foster understanding, cooperation, and trust. Many schools or classrooms are doing an excellent job in stimulating and developing literacy. The public needs to be made more aware of the good work being done in today's schools.

A third, very important reason to be concerned about these legislative mandates on phonics is that these bills will have serious negative effects on educational outcomes. State legislators are motivated by a desire to improve literacy education; no one disputes their intentions to improve our schools. However, the solution they propose (intensive phonics) could produce unexpected harmful and costly consequences. This last point will be a major focus of this paper. Educators, legislators, parents, and taxpayers need a clear understanding of the damage that can result from mandating a particular method of teaching, specifically intensive systematic phonics, as the primary method of literacy instruction in the early years of schooling.

The specific provisions usually contained in the proposals would require teachers in the primary grades (K-3) to spend the majority of their language arts and reading time in direct instruction on letter names, sound-letter associations, syllabication, phonetic analysis, conventional spelling, and traditional grammar. The specific language of the bill that was passed by the North Carolina House reads as follows:

> Instruction in the language arts component of communication skills in kindergarten through third grade shall include as the primary method the use of early and direct intensive systematic phonics. 'Early and direct intensive systematic phonics' is a method of teaching beginners to read, pronounce, and spell words by learning the letter-sound associations of individual letters, letter groups, and especially syllables, as well as the principles governing these associations.' [NC House Bill 917. The language of this bill was later somewhat softened and qualified in the Senate and through House/Senate negotiation.]

This proposal sounds reasonable enough to many people. Readers of texts written in the English language must be responsive to the alphabetic principle. There is even an impressive body of research indicating that an important distinction between good readers and poor readers of almost any age is the degree to which they know sound-symbol relations and the speed in which they respond to letters and letter patterns (Adams, 1990; Just & Carpenter, 1987; Rayner & Pollatsek, 1989; Stanovich, 1981, 1991). But there is also a mass of evidence suggesting that the difference between children who are good and poor readers can be accounted for by (a) differences in language and literacy learning before school entrance and (b) the amount of time children spend reading books and stories in meaningful situations. (Adams, 1990; Allington, 1983, 1993; Clay, 1991; Taylor & Dorsey-Gaines, 1988).

This paper will not argue that phonics knowledge is undesirable or that students should not develop automatic rapid response to letters and letter patterns. However, legislative proposals which would mandate intensive phonics as the method to teach beginning reading are based upon some unwarranted assumptions. These proposals assume that:

> *Phonics knowledge is a prerequisite* for reading and that strong doses of phonics early are the best guarantees of literacy success;
>
> *Phonics knowledge is sufficient* to establish "the basics" in reading; therefore, training in sound-symbol associations and phonics rules should be the methods of beginning reading instruction, and that over-teaching provides a necessary safeguard; and
>
> Rather than *building on strengths,* a diagnostic-prescriptive approach is recommended, teaching those elements that a child does not know or is not yet able to use.

These beliefs about how phonics knowledge develops often lead to the mistaken conclusion that any approach that emphasizes meaning is an attempt to avoid the use of sound-symbol cues while reading. This paper will present arguments to counter these commonplace assumptions about the role of phonics in learning to read. In addition, this paper will explain the *costs and consequences of these legislative proposals* which, as written, are potentially very harmful to many children in their efforts to become literate. The paper will close with a few observations about *the obligations of schools and educators* toward the development of true literacy.

The Illusion of Phonics as a Prerequisite for Reading

The notion that phonics knowledge is the determiner of skilled reading performance is only partially true; it is largely an illusion. Knowledge of letter-sound associations *is* a necessary condition for reading skill to develop beyond the beginning stages. Children do not acquire sight recognition of a large number of words unless they have established a tacit understanding of sound associations for consonants and most common letter combinations. Research studies show a very strong relationship between reading ability and a number of aspects of what might be called phonics knowledge, such as phonemic awareness, ability to read pseudo words, and ability to write letters to represent sounds (Adams, 1990; Juel, Griffith, & Gough, 1986; Tunmer & Nesdale, 1985).

Research also shows tremendous differences among children in their understandings of other literacy-related concepts, such as directionality, acquaintance with the visual aspects of print, and the meaning of such concepts as *letter, word, story, first,* and *last* (Clay, 1982, 1991, 1993; Goodman, 1982; Sulzby & Teal, 1991). Other significant differences exist in children's acquaintance with narrative language, with the structure of stories, and with the literate language of books (Cazden, 1992). These differences are related to reading ability and the ability to acquire what is traditionally called phonics knowledge. Research shows that limited experience in these areas in the preschool years not need stand in the way of reading and writing development if a child enters a rich literate classroom environment and receives skillful contingent teaching. Children can develop skill and automaticity in processing print if they are allowed to use and shown how to use their meaning-making and language abilities along with their beginning knowledge of print and letter-sound relationships as they learn how to engage in the complex process of reading (Clay, 1993; Hiebert & Taylor, 1994).

Perhaps the illusion of phonics knowledge as the determiner of reading ability can best be seen by envisioning two contrasting students, Myrna who is advanced for her age and Verle who is struggling with reading and lagging well behind his age-mates. Before entering school, Myrna had acquired a broad constellation of concepts and abilities that put her well on the way to reading and writing before she entered formal instruction. She understood at an early age that print represents spoken language messages and she had become familiar with the specialized language of books and stories. She had learned to use language as a tool for reasoning through many extended conversations with adults. She had learned the names and forms of many letters and had learned the directional conventions of books and print. Myrna had developed good awareness of the sounds of language and could manipulate rhyme and alliteration. She had seen her parents reading and writing in many situations and enjoyed trying out her own written messages, inventing ways to write down what she wanted to convey.

School phonics lessons have been easy for Myrna and for children like her. These lessons allow her to call up what she already knows and to use that knowledge in different ways. She may enjoy the manipulation of words and sounds and take pride in high grades on her worksheets. But there is a good possibility she will be bored by a steady diet of this work and that she will need opportunities to read and write in pursuit of her own interests in order to maintain her enthusiasm for reading. A curriculum emphasizing drill on phonics elements will tend to pull Myrna's reading abilities back toward the mean of the class and greatly reduce opportunities to develop her full potential as a critical, creative reader and writer with wide-ranging interests.

The low-progress reader, Verle, is a stark contrast. He has made little progress in learning to read; therefore, the teacher may think he is unintelligent or learning disabled. But a closer look at his learning history shows that he has had stories read to him only two or three times before entering school. He has had very limited opportunity to engage in conversations with adults and consequently does not use language very effectively to communicate outside his family. Verle may not have learned the directional conventions of books and print. He is quite confused about the meaning of terms like *word, letter, line, page, sound, same,* and *different*. He has had little experience with writing and does not seem to understand that letters like *s, r,* and *e* must always be formed with the same spatial orientation. He knows that print carries the message of stories, but he seldom is looking where the teacher would like to have him look because of his numerous confusions. When the teacher asks Verle to tell what letter a word starts with, he makes random guesses. Although he seems to learn letters and words during phonics lessons, he retains them poorly.

These examples illustrate that phonics knowledge as a prerequisite for literacy is too simplistic a view. Phonics knowledge arises after or in conjunction with a host of early concepts about print and about language. Phonics lessons are easy for many children like Myrna because they have already developed a facility with language that includes linguistic awareness; because they have already learned a number of literacy conventions and concepts and because they are acquainted with the purposes of reading and writing, and even literate styles. Although it appears these children learn phonics early, it is really a fairly late accomplishment for them because their literacy learning began three or four years ago in a conducive home and community environment.

An early school focus on letters and sounds seems appropriate for high progress children because they can be successful, but for many low progress children, such as Verle, it is often a disaster. They lack many of the prerequisite concepts for this abstract kind of learning. They have limited or confused knowledge of the conventions of books and print. And they usually lack linguistic awareness—the ability to focus their attention on language and be aware of the *sounds* the teacher is asking them to relate to letters. For these reasons, they fail on phonics tasks and feel inadequate and stupid. Because their experience with books and narrative stories is very limited, they see little reason for attempting to learn to read, and they see even less reason to try to learn those strange symbols and sounds the teacher believes are so important. A curriculum of systematic, intensive phonics for all children raises the learning threshold for many children to an almost impossible level. Far from enabling all children to learn to read, this proposal would result in failed learning experiences for a significant percentage of children.

Phonics Knowledge is Not Sufficient

Research concerning the reading process shows that phonics knowledge, although needed, is not enough. For the adult reader, and especially for the beginning reader, letter-sound cues are only one of several sources of information that must be used. The use of meaning plays a vital role for readers of any age. It is the goal of reading—if the text does not make sense and if the reader does not want to find out what it says, reading stops. Meaning potentials are an important aid in figuring out new words; i.e., the meaning of the sentence or story up to a point may significantly reduce the alternatives from which a reader may choose and make word identification faster and easier. Meaning also supplies confirmation that the reader is on target or it may signal that something has gone wrong.

The flow of language (syntax) also plays a very important role in reading at all levels. Readers construct sentences or language units in their heads while reading. These language units aid word identification by establishing expectations and narrowing the range of alternatives. Grammatical units provide a means of constructing and retaining meaning until it can be stored in longer-term memory. If the syntactic structure or the flow of the sentence does not come out right, readers often reread or stop reading.

Phonics knowledge and word knowledge are the other important elements in reading ability. For skilled readers, printed words signal almost immediate identification and meaning association. Mature readers tend to bring into their visual focus most of the words on the page and usually notice quickly any misprints or spelling irregularities (Just & Carpenter, 1987; Rayner & Pollatsek, 1989). However, phonics and word knowledge are only one of the important cuing systems that all readers depend upon as they read.

The argument for teaching phonics first is often justified by evidence of the success of children in school programs which teach letters, sounds, and some words before students read connected sentences or stories. The prior learning that allows many children (such as Myrna) to succeed in such an approach has been discussed above. Learning letters, sounds, and words first may work even for some children who do not come from home environments that fostered early literacy. But for a significant percentage of children (estimated at 10 to 30 percent, depending upon region and context) this learning approach will prove extremely difficult, delaying the time that they learn to read and producing a high rate of failure (Allington, 1993; Clay, 1991; McGill-Franzen & Allington, 1991).

Many children who seem to be successful in the item learning required by these programs (i.e., learning letters and sounds) still cannot read. They find the memorization of associations easy and this becomes their habit of learning. Reading, on the other hand, is complex problem-solving. It requires subliminal (without conscious attention) processing of several kinds of information simultaneously. Learning how to read is different from learning phonics. It requires practice in reading real texts to obtain meaning. One of the most consistent conclusions of reading theorists is that children learn to read by reading (Adams, 1990; Bussis & Chittenden, 1987; Clay, 1979, 1991; Gibson & Levin, 1995; Just & Carpenter, 1987; Smith, 1994). Research seems to converge upon the notion that the complex mental processing and the integration of information from a variety of sources can only be acquired through the process of engaging in reading and writing activity during which the mind is focused on the meaning of the text. The comparison to learning to drive is quite apt; a person cannot learn just by practicing isolated skills, such as turning the steering wheel or manipulating the brake and clutch pedals. You have to learn to do those things while making the car move in some direction and while keeping a watchful eye on what is around you.

Building on Strengths or Teaching to Weakness

The proposal to focus beginning reading on intensive, systematic phonics is a proposal to teach to children's weaknesses. It assumes that the way to teach is to test, find out what the person does not know, drill on those items, then retest. Many learning theorists now reject this approach, especially for learning complex processes like reading. They urge teaching to a child's strengths, which means beginning with what he or she knows and using that knowledge to develop new learnings. These experts also advise that we begin with the largest units the student can attend to, and that we make sure a child can distinguish a difference before we ask him to learn a name for those units (Clay, 1991, 1993; Smith, 1994).

This advice translates into the recommendation that phonics knowledge should not be the beginning point of literacy for children. For children like Myrna, phonics knowledge was not the beginning point. These children have been read to and have talked about books and stories with adults for several years before entering school. Gradually, after learning much about how books work, they became aware of word units on the page and began to make connections between letters and sounds. Their phonics knowledge grew largely out of their own efforts to make sense of books, using what they already knew. A curriculum that begins with phonics deprives the lower-progress students of the same opportunities to build an understanding of how books and stories work and then use what they know in order to learn new things.

A heavy emphasis on intensive, systematic phonics in beginning reading is dysfunctional for two reasons: (a) for many children it is too abstract and advanced in relation to newly developing concepts about print and awareness of language and sounds; and (b) for all children, it focuses attention on one aspect of reading (letters, words, and sounds) at the expense of meaning and language structure; information that is essential for reading at any level.

Unfortunately, many teachers have not been trained to teach to children's strengths. Their training should develop the observational skills to know what children are able to do and to determine what they are ready to learn next. Teachers should be taught how to *scaffold* instruction so that children are encouraged to do independently what they can and be assisted in doing what they cannot yet do alone; meanwhile teaching through demonstration and assisted performance those things that the child is now ready to learn. There is a clear need to improve teachers' abilities to help all children learn to read and write, but mandating a method will not produce the desired results. Mandating intensive, systematic phonics will drastically limit the tools and the decisions teachers can make.

How Useful Phonics Knowledge Develops

Skillful, automatic recognition of words and a sensitivity to letter-sound associations are characteristics of good readers. Lack of skill in these areas, on the other hand, is usually a characteristic of poor readers (though not always: some people who are rather weak in these skills may qualify as good readers, even by the definitions given by cognitive reading psychologists). To understand the role of phonics knowledge in reading, we need to ask: (a) why these differences arise, and (b) how skill in these areas develops.

It has been suggested earlier that many children fail to develop fluent phonics knowledge because the teaching has begun at too high a level. These children have been asked to try to learn and use initial letter sounds in reading when they are not aware of phonemes (sounds), when they still cannot identify many letters, and when they have had little exposure to the meaningful purposes of reading. Such inappropriate instruction can explain why many children fail and perhaps explain some of the differences in achievement.

A second explanation of difference may be found in the quantity of literacy experiences children have. There are huge differences between children in the number of books they have been exposed to before they enter school (Taylor, 1989) and there are huge differences in the amount of reading that children do after they enter school (Allington, 1983). We know that the associations of sound patterns with letter patterns are built up largely through practice (Adams, 1990) and that the most productive practice involves reading books and stories for meaning (Clay, 1991). Massive amounts of practice develop fluency and flexibility in word recognition, skill in the visual analysis of word elements, and rapid association of sound patterns with quickly identified letter combinations. A heavy focus on phonics instruction may become an impediment to reading development by drastically reducing the amount of time available for extensive, meaningful reading that will develop their abilities further.

A third explanation may be that many students take a very passive, rather indifferent approach to phonics learning. Because they are asked to follow adult-determined sequences of instruction, and because they are asked to practice skills in isolation, these children see little purpose for learning about letter and sound patterns. Unlike children like Myrna, they do not readily see relationships between letter patterns and words that look alike and sound alike. And they do not transfer what they have learned from phonics lessons into the act of reading real texts.

It could also be that there are differences among learners in their predilections for learning about phonics. Some people may find it harder to focus on orthographic features of words or they may simply prefer to pay no attention to detail that is not absolutely necessary, preferring instead to rely on the redundancy of cues available during reading. Individual characteristics, however, probably play a much smaller role in explaining difference than quantity and quality of learning opportunities and a passive approach to learning.

Many people develop a high degree of implicit knowledge of phonics through their literacy experiences. Explicit teaching of phonics is another way that phonics knowledge can be developed. Just as there are dangers of creating an imbalance in reading programs by an overemphasis on phonics, there is also danger that a reading program may be imbalanced in the opposite direction. Some children may need more guidance than they might receive in a program that relies exclusively on the reading and writing of whole text. Phonics instruction is most useful when it is tailored to the individual child, when it builds upon current knowledge, when it is integrated with writing experiences, and when it allows children to learn to integrate their phonics knowledge into the reading and writing of meaningful text. Group lessons that are short, lively, and exploratory can be useful, but there is no guarantee that children will transfer knowledge from isolated phonics sessions into their reading repertoires. It is misguided to believe that children will learn to read by learning and then applying phonics rules. Readers learn to respond automatically to specific letter combinations. We become conditioned through reading experience to respond to words like *lath, rasp, stack* with the *short a* vowel sound, but we respond to most words beginning with *wa* (e.g., *wattle, waffle,* and *want*) with a different sound of *a* and to *hold, both,* and *host* with a *long o* sound. Conscious rules seem to have nothing to do with this; in fact most of us were never taught any rules to cover these cases.

Readers must learn to respond quickly and automatically to letter patterns in short words and quickly perceive divisions in longer words. For example, they need to see quickly that *accommodate* breaks into *ac-com-mo-date* and they need to have a strategy to attack the first two syllables either as *AC-com*, or *ac-COM* (capitals indicate stress). Advocates of systematic phonics assume that children have to learn the associations first and then they apply them to the task of reading for meaning. What seems more reasonable, based upon the research evidence and extensive experience and observation, is that children learn the associations and many more strategies and associations than phonics teachers are even aware of, in the act of problem-solving words in meaningful reading situations that present just the right amount of new learning (Adams, 1990; Rayner & Pollatsek, 1989; Smith, 1994). But they have to be able to do so while they are carrying in their heads the meaning of the story, the syntax of the word group they are processing, and even the syllabic stress patterns of individual words.

The Costs of Direct Instruction and a Curriculum of Control

Reading is more than a skill; it is an attitude, a habit of mind. Many high school (and college) graduates who are quite skilled in literacy have an aversion to reading and writing. The conditions that foster the habits of reading and writing certainly do not include coercion. The conditions which foster lifelong engagement in literacy include opportunities to read or write about topics of personal interest, opportunities to choose what to read or write about, and opportunities to share ideas through reading and writing and discussions of texts.

Many teachers and educators have demonstrated that it is possible to develop solid understandings of phonics, spelling, and writing conventions without sacrificing the conditions that foster a love of reading and writing and a literate mind. Yet far too many students enter college with negative attitudes toward reading and writing and little confidence in their own literate abilities. Analysis of these students' reports reveals that they came from schools with a curricular focus on phonics knowledge and language conventions and instructional practices which centered on teaching to weakness.

Public concern about literacy levels is understandable and probably warranted. Although there is strong evidence that schools are actually doing better today than ever before (National Assessment of Educational Progress, 1991), it is also clear that the demands for literacy are higher in two directions: (a) there is no longer any productive work for those who cannot read and (b) the level of literacy and critical thinking required of all citizens is higher than has ever been expected before. Previously, a few people reached these heights because of inherent abilities combined with rich opportunities within their own homes and communities. We now expect all students to reach high levels, yet we are a long way from reaching that goal. Phonics knowledge is only one aspect of reading ability. We must be just as concerned about the development of critical comprehension skills, the desire to read, the ability to learn through reading, and the appreciation of reading as we are about the ability to pronounce words accurately and the literal recall of printed messages.

The Obligation of Schools Toward the Development of Literacy

A number of other lines of argument might be taken in discussing the consequences of initiatives that press for intensive phonics as the basis of beginning reading education. What has been offered here is incomplete partly because of my own limitations as a writer, but partly because collective knowledge of these topics is incomplete. Despite the mass of research and writing about phonics and reading, we still do not completely understand or agree concerning: (a) the relationships between language and print, (b) the physical and mental processes involved in reading, and (c) the processes of learning to read and write. Many phonics advocates are distrustful of educators and researchers; they probably know less about these topics than the professionals, but seem to be quite sure that they know more. The suspicion and distrust that surround these arguments are counterproductive, but perhaps the blame for these attitudes must be shared by both sides. These thoughts lead to some closing remarks, some of which add emphasis, others of which are postscripts. I believe all worthy of notice.

Educators and reading experts must not ignore or dismiss the complaints or the arguments from phonics advocates. They need to take seriously their responsibility to make sure that children learn to read and write adequately and feel confident of their abilities.

Teachers need to learn to observe more closely and pay serious attention to what their students know and can do, and the level at which they can learn most effectively. We cannot let students become bored because school is too easy or fail because it is too hard or inappropriate. We know how to teach almost every child to read, so we have an obligation to structure our schools and conduct our educational practices to be sure that we put that knowledge to use.

Whatever method is used to teach children to read and write, the conditions of schooling should foster enjoyment of reading and writing and should promote literacy in its fullest sense. They must foster and encourage the acquisition of conventions without letting this concern hinder appropriate developmental considerations, the provision of helpful scaffolding during instruction, and the acceptance of approximations during learning.

Educators must realize that new approaches may challenge traditional values and learn to step lightly in talking to other teachers and to parents and lay persons. They must acknowledge concerns while providing convincing evidence that the approach they advocate really works. Lay persons must recognize the professional competence of teachers and educators, but continually ask that schools and teachers be accountable for results.

The knowledge and practices needed to improve literacy instruction do exist, but they are not widely accepted and applied in school practice. If we truly wish to make our schools productive for all citizens we must observe closely what happens with real learners in real schools, and we must continue to engage in discussions that extend knowledge and reexamine unproductive and unwarranted assumptions. If battles over control are thrust upon us, we must defend and express our expertise and work to avert attacks on our schools and our children.

References

Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge: Harvard University Press.

Allington, R. L. (1983). The reading instruction provided readers of differing reading abilities. *The Elementary School Journal, 83,* 548-559.

Allington, R. L. (1993). Michael doesn't go down the hall anymore. *Reading Teacher, 46,* 602-605.

Bussis, A. M., & Chittenden, E. A. (1987, March). Research currents: What the reading tests neglect. *Language Arts, 64,* 302-308.

Cazden, C. (1992). *Child language and education*. New York: Holt, Rinehart and Winston.

Clay, M. M. (1979). *Reading: The patterning of complex behavior*. Auckland, New Zealand: Heinemann.

Clay, M.M. (1982). *Observing young readers*. Exeter, New Hampshire: London & Auckland, Heinemann.

Clay, M.M. (1991). *Becoming literate: The construction of inner control*. Portsmouth, NH: Heinemann.

Clay, M.M. (1993). *Reading Recovery: A guidebook for teachers in training*. Portsmouth, NH: Heinemann.

Gibson, E.J., & Levin, H. (1995). *The psychology of reading*. Cambridge, MA: MIT Press.

Goodman, K.S. (1982). *Language and literacy: The selected writings of Kenneth S. Goodman*. (F. V. Gollasch, Ed.), 2 vols. Boston: Routledge and Kegan Paul.

Hiebert, E.H., & Taylor, B.M. (1994). *Getting reading right from the start*. Needham Heights, MA: Allyn & Bacon.

Juel, C., Griffith, P.L., & Gough, P.B. (1986). Acquisition of literacy: A longitudinal study of children in first and second grade. *Journal of Education Psychology, 78*, 243-255.

Just, M.A., & Carpenter, PA. (1987). *The psychology of reading and language comprehension*. Needham Heights, MA: Allyn & Bacon.

McGill-Franzen, A., & Allington, R., (1991). The gridlock of low reading achievement: Perspectives on practice and policy: *Remedial and special education, 12*(3), 20-30.

National Assessment of Educational Progress, 1991.

North Carolina House Bill 917.

North Carolina General Assembly Ratified Bill, Chapter 716, SB1159. North Carolina Senate Office Building, Raleigh, NC.

Rayner, K., & Pollatsek, A. (1989). *The psychology of reading*. Englewood Cliffs, NJ: Prentice Hall.

Smith, F. (1994). *Understanding reading* (5th ed.). Hillsdale, NJ: Erlbaum.

Stanovich, K. E. (1981). Attentional and automatic context effects in reading. In A.M. Lesgold & C.A. Perfetti (Eds.), *Interactive processes in reading* (pp. 241-267). Hillsdale, NJ: Erlbaum.

Stanovich, K. E. (1991). Word recognition: Changing perspectives. In R. Barr, M.L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 418-452). New York: Longman.

Sulzby, E., & Teal, W. (1991). Emergent literacy. In R. Barr, M. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 727-758). New York: Longman.

Taylor, D., & Dorsey-Gaines C. (1988). *Growing up literate: Learning from inner-city families*. Portsmouth, NH: Heinemann.

Taylor, D. (1989). Toward a unified theory of literacy learning and instructional practices. *Phi Delta Kappan, 71*, 184-193.

Tunmer, W. E., & Nesdale, A. R. (1985). Phonemic segmentation skill and beginning reading. *Journal of Education Psychology, 7*, 417-427.

A VYGOTSKIAN PERSPECTIVE ON LITERACY ACQUISITION: TALK AND ACTION IN THE CHILD'S CONSTRUCTION OF LITERATE AWARENESS

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LITERACY,
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THIS STUDY ANALYZED THE VARIOUS TYPES OF TALKS AND ACTIONS used by one teacher and two children across reading, drawing, and writing events. Three major constructs emerged from a preponderance of the data which indicated that talk was used to acknowledge, to assist, and to communicate specific information about literacy. The constructs served as an organizational framework for an in-depth analysis of the types of teacher-child discourse used in regulating the children's participation in literacy events. The findings from this study indicated that talk and action worked together within the social and cultural fabric of the literacy events to shape the children's construction of literate awareness.

Within a sociocultural framework, literacy is viewed as a complex interactive and interpretative process whose development is determined by its cultural and social factors (Bruner, 1967; Luria, 1982; Vygotsky, 1978). Through social interaction and the use of culturally determined tools and symbols, basic literacy processes are transformed into higher intellectual functions (Vygotsky, 1978, 1989). Each intellectual function must appear two times: first, on a social, external plane between two people, and next, on a personal, internal plane within the child. The connection between external and internal activity is conceptualized by Vygotsky (1978) as inter and intrapsychological functioning.

Vygotskian theory emphasizes social interaction as a tool for transmitting specific knowledge for learning how to construct problem-solving activities. This concept maintains that children move from other-regulatory (external) to self-regulatory (internal) behaviors through interactions with individuals in their environment. The child's ability to organize and monitor his or her own thinking occurs as a result of demonstrations during social exchanges with others. Mediated learning experiences with more literate individuals demonstrate the language needed to guide the child toward regulating his or her own thinking (Forman, Minick, & Stone, 1993; Newman, Griffin, & Cole, 1993; Rogoff, 1990; Wells & Chang-Wells, 1992). Social interaction represents the vehicle that transports the child to a higher intellectual plateau.

Using Vygotskian theory, Donaldson (1978) established the link between the growth of consciousness and the growth of the intellect, "If the intellectual powers are to develop, the child must gain a measure of control over his own thinking and he cannot control while he remains unaware of it" (p. 129). Consciousness of an action is constructed as the child actively participates with an adult during meaning-making dialogues. The more literate person represents the consciousness of the child, thus enabling the child to experience the behavior vicariously (Bruner, 1986), but coming to control the behavior as self-awareness leads to internalization. As the child develops control of an action, the adult's language is regulated according to the child's increased understanding for performing the action. Thus, the child's transition from the interpsychological plane (the teacher-child social encounter) to the intrapsychological plane (within the child) occurs as the child internalizes the external means (the teacher's speech) into an internal model (inner speech) for guiding his or her performance on particular literacy tasks.

Wertsch (1984) described how the child's potential for accomplishing an action is regulated according to three important constructs: situation definition, intersubjectivity, and semiotic mediation. If the child is working on the interpsychological plane, the child's definition of the situation may differ from that of the adult's definition. Intersubjectivity occurs when both participants negotiate meanings in order to achieve a mutual definition for accomplishing the task. Negotiation of an intersubjective situation definition transpires as the adult provides linguistic support to accommodate the child's understanding for the activity. Wertsch (1984) suggested that "these shifts reflect the adults' flexibility in using speech to create a new level of intersubjectivity based on the feedback that they receive about the child's intrapsychological situation definition" (p. 7).

There has been a proliferation of research based on Vygotsky's theory of cognitive functioning (Campione, Brown, Ferrara, & Bryant, 1984; Clay & Cazden, 1990; Cole & Griffin, 1984; Englert, 1992; Hedegaard, 1990; Kantor, Miller, & Fernie, 1992; Moll, 1990; Newman & Roskos, 1992; Rogoff & Gardner, 1984). The compatibility of these research studies supports the concept of assisted performance in the child's zone of proximal development. It is within this zone that the tools and techniques of society are practiced during social interaction with more experienced others. Through the mediation of a supportive adult, the child becomes aware of the significance of his or her own learning capabilities, and comes eventually, through internalization, to perform cognitive self-regulatory functions which originally were accomplished only in collaboration with an adult (Brown, 1982; Wertsch, 1985).

Reading Recovery Program

One program that emphasizes the importance of responsive talk for facilitating cognitive change in at-risk readers is the Reading Recovery program (Clay, 1993a). Reading Recovery is a one-to-one early intervention program designed for those children who are experiencing the greatest difficulty in their first-grade classrooms. The program emphasizes accelerated learning through demonstrations and active participation in strategy-based reading and writing events. As the child becomes a more competent reader and writer, the control of a behavior shifts from teacher-regulated to child-regulated. Utilizing Vygotsky's theory of social interaction during literacy events, teacher demonstrations of literacy behaviors become child-internalized functions.

Roaming Around the Known

The first two weeks of the Reading Recovery program consist of an in-depth observational period, during which time the teacher provides the child with many opportunities to explore literacy. Clay (1993a) described it as a time when the teacher leaves behind his or her preconceived notions about the child and follows the child as he or she engages in acts of literacy. The teacher serves as a mediator of literacy for the child, providing the appropriate support that, in turn, enables the child to make discoveries about his or her own learning. In a risk-free, supportive setting the child engages in various literacy events that promote fluent and flexible use of the child's existing knowledge. At the end of the 10- day period, the child is more secure with the knowledge he or she possesses and is more able to generalize this knowledge for constructing new literate activity. Teacher observations and flexible conversations represent fundamental tools for the successful construction of intersubjective literacy events.

Rogoff's (1990) concept of children as *apprentices in thinking* relates well to the learning context of *roaming around the known*. Theoretically, she uses a Vygotskian framework to describe the guided participation of adults with children during collaborative events. Rogoff viewed the social interaction between adult and child as providing bridges between known skills and information needed to solve new problems. From this point of view, children develop consciousness of a particular behavior during interactive literacy events with more competent individuals. roaming around the known represents a context where a child's awareness of a literacy behavior is developed during interactive, supportive exchanges with adults. Within this framework, a child's understanding of a literate activity provides a bridge for extending the child's learning to a higher level.

By focusing attention on the social and communicative structure of interactive literacy events, this study explored the influence of talk and action in a child's acquisition of literacy. The following question guided this exploration: "What types of teacher-child talk occur during literacy events that shape the child's construction of literate awareness for particular concepts of literacy?"

Methodology

The setting for this study was a small rural elementary school in the Southeast. Eighty percent of the student population qualified for the federally funded free lunch program. The participants in this study were one Reading Recovery teacher, Jane, and two of her Reading Recovery students, George and Allen. The students were recommended by their first-grade teachers as experiencing difficulty in reading in their classrooms. The results of Clay's (1993a) observation survey of reading and writing tasks indicated both children were in need of reading intervention.

Data were collected on George and Allen during the ten-day period of each child's Roaming Around the Known sessions, which occurred in September for George and February for Allen. A variety of sources were used in data collection which allowed for the triangulation of data (Sevigny, 1981) across literacy events. Sources included 20 audio tapes, 20 video tapes, 40 pages of teacher observation notes, 25 student-written stories, 210 pages of researcher notes, and more than 400 pages of transcribed teacher-child interactions.

As the data were searched, four literacy contexts were identified. The first—and largest—context was the literacy event. Ten literacy events were coded which included (a) reading a familiar book, (b) listening to a story read aloud, (c) participating in the introduction to a new book, (d) sharing the reading of a new book, (e) discussing a book after the reading, (f) writing words, (g) generating a story for writing, (h) writing a story, (i) drawing pictures for a student-generated story, and (j) reading a student-written story.

The second literacy context used in data analysis was the literacy episode. Literacy episodes were descriptive segments of sustained talk with a recognizable focus (e.g., the construction of a word) within the context of a literacy event (e.g., writing a story). The identification of literacy episodes enabled a more intensive examination of teacher-child talk within an event. The following example illustrates the descriptive quality of a literacy episode, which focuses on the collaborative writing of a phrase in George's book.

> Jane and George are collaborating on the writing of a story about the zoo. The pattern of the book is based on a two-word language phrase which is similar to a pattern in a book recently read by George. Each page begins with the word *A* and is followed by an animal name. George selects a picture of a kangaroo for

his book and writes the first word *A*. Then, he says *K* for the first sound in *Kangaroo*. Jane responds, "Yes, it has a *K* in it. Go ahead and put a *K*." As George writes the *K*, he says, "I knew it." Jane confirms George's knowledge as she comments, "You knew that, didn't you? Very good. That's a good *K*."

The third literacy context was the literacy conversation of the teacher and child during a literacy episode. Conversations were identified as teacher-child discourse extracted from the episode. The following transcript provides an example of a literacy conversation. In comparison to the previous example of a literacy episode, the conversation includes only the teacher-child dialogue for attending to a particular literacy concept.

George: *K*.

Jane: Yeah, it has a *K* in it. Go ahead and put a *K*.

George: I knew it.

Jane: You knew that, didn't you? Very good. That's a good *K*.

The fourth type of literacy context used in data analysis was the literacy statement, which was coded at the idea unit of analysis. Within the context of a conversation, particular statements were extracted that indicated literacy knowledge for a specific concept. The identification of these statements served as a tool for counting the number of times a child displayed specific knowledge for a particular literate concept.

Development of Categories and Constructs

Transcripts from audiotaped sessions provided a means for developing categories and searching for linkages between teacher-child talk during various literacy events and the children's literacy development. Initial transcribing sessions were concerned with accurate recording of teacher-child conversations and the development of a system for recording linguistic conventions. Transcriptions were checked for accuracy of recording against videotaped interactions.

Data analysis began at the end of September when George completed his ten Roaming Around the Known sessions. As audiotapes were transcribed, observer comments were spontaneously recorded. Following each transcribing session, data were searched for interesting patterns of teacher-child talk. As linguistic patterns of literate awareness emerged, data were scrutinized for linkages among concepts, which resulted in the collapse and refinement of specific categories of talk. An early category (Construct 1) emerged that indicated the teacher and child used talk for acknowledging the child's awareness of particular literate concepts. Within the organizational framework of this construct, the data were further analyzed. Qualitative and quantitative measures of analysis included the following: (a) descriptive episodes and conversations that illustrated the child's awareness of literacy and (b) frequency counts for categorical statements that indicated the child's knowledge of specific information about literacy.

As the data were further searched, an additional pattern of talk emerged that indicated the teacher and child used various conversational devices for assisting the child's literacy accomplishments. Based on a Vygotskian theory of assisted performance in literacy acquisition, linguistic patterns that indicated a type of assistance were integrated under the second major construct in this study. The emergence of Construct 2 served as an organizational tool for exploring the child's literate awareness from the viewpoint of assisted activity during literacy events. Data were analyzed according to two categories of assistance: (a) descriptive data from multiple readings of a single book were analyzed and words were counted to determine if a shift occurred from teacher-regulated assistance to child-regulated assistance; and (b) descriptive data were analyzed to characterize strategies used by the teacher and child to negotiate responsibilities during reading, writing, and drawing events.

By February when Allen began his sessions, data analysis was influenced by the emergence of Constructs 1 and 2. Data were revisited, refined, and parameters set to describe committed categories. In the process, data were searched to determine if committed patterns of acknowledgment and assistance (Constructs 1 and 2) remained constant with both children. Categories that represented a preponderance of the data were examined within the organizational framework of the two major constructs.

During data analysis, a third pattern of talk emerged that indicated a primary emphasis of teacher talk with both children focused attention on communicating specific information about particular concepts of literacy. Literacy statements were counted to determine frequencies of occurrence for types of teacher talk used in addressing particular literacy concepts. Categories of talk that indicated a preponderance of teacher talk for communicating specific information about literacy were integrated under Construct 3.

In summary, three theoretical constructs emerged from the examination of the data. The first construct served as a tool for identifying the types of teacher-child talk used for acknowledging the child's current level of awareness for a particular literacy concept. The second construct served as a tool for identifying the types of talk used for assisting the child during literacy events. The third construct served as a tool for identifying the types of talk for communicating specific knowledge about literacy concepts (Table 1 displays the constructs and their related categories). The theoretical constructs provided a flexible framework for answering the research question guiding this study: What types of teacher-child talk occur during literacy events that shape the child's construction of literate awareness for particular concepts of literacy?

Results and Discussion

Construct 1: Teacher-Child Talk for Acknowledging the Child's Awareness of Literacy

An important premise of *roaming around the known* is that the teacher stays with what the child knows, therefore providing the child with multiple opportunities to become fluent and flexible with this knowledge. Based on this assumption and based on the preponderance of the data, three types of talk were identified that provided evidence of the child's current level of performance on a particular writing task.

The first type of talk that described the child's literate awareness was classified as child talk. Child talk included any descriptive statement by the child that indicated the child was monitoring his own cognitive processes. Child talk was qualified according to the child's explicit language for describing his successful performance on specific literacy tasks (e.g., "I can write *dog*" was followed by the action of writing the word *dog*.).

Table 1

Theoretical Constructs for Describing Types of Teacher-Child Talk

Construct 1: Talk for acknowledging literate awareness	Construct 2: Talk for assisting literate performance	Construct 3: Talk for communicating literacy concepts
Child talk for self-initiating and successfully accomplishing the performance of a specific literate action	Participatory Talk for regulating degrees of support for participating in reading events	Teacher Talk for communicating specific information about reading and writing literacy
Teacher Feedback Talk for acknowledging child's performance of a specific literate action	**Teacher-Regulated** Key words Unison reading Completion reading Independent reading **Child-Regulated**	Teacher talk for explicitly describing her personal literate performance of a specific literate action Teacher talk for explicitly describing the child's personal literate performance of a specific literate action
Teacher Feedforward Talk for activating child's preexisting knowledge for performing a specific literate action	Negotiating Talk for regulating degrees of responsibility for participating in drawing, writing, and reading events	Negotiating Talk for regulating talk about concepts of book, talk about child as reader, and talk expressing enjoyment
	Teacher inviting participating Child seeking assistance Teacher providing help as needed	

Next, the child's awareness of concepts was identified according to teacher feedback talk. This type of teacher talk included any teacher statement that provided descriptive feedback of the child's self-initiated literate activity (both verbal and nonverbal) such as, the child writes the letter *t* in the word *cat*, and the teacher responds, "You heard the *t*, didn't you?"

Third, the child's literacy awareness was identified according to teacher *feedforward* talk. The term feedforward was borrowed from Bruner (1974) and Clay (1991) who use it to describe anticipatory devices that signal "the shape of the act yet to occur" (Clay, 1991, p. 137). In this study, the notion of feedforward activity was adapted to describe the types of language used by the teacher for awakening the children's knowledge of previously exhibited information to be used in a new literate activity. The descriptive nature of feedforward talk is illustrated:

> The teacher is aware the child knows how to write the word *I* from prior observations. Based on this knowledge, she uses talk to activate the child's awareness of what he or she knows about writing the word. She hands the child the marker and says, "You can write *I* can't you?" Table 2 provides examples of the three types of talk for acknowledging and describing the child's literate awareness for particular writing concepts.

Results from this study indicated that the most frequent uses of talk for acknowledging the children's literate awareness were manifested in the teacher's feedforward and feedback talk during writing events. The amount of teacher feedforward talk (151 statements, 45 percent of total talk) was almost identical to the amount of teacher feedback talk (145 statements, 43 percent of total talk). These numbers suggest that Jane used feedforward and feedback talk for reinforcing the children's knowledge for particular concepts of literacy. In comparing the three types of talk, the teacher's talk for responding to the child's demonstrations of literacy (with 88 percent of total statements classified as feedback and feedforward talk) appeared to be of greater importance than the child's ability to verbalize his own knowledge for specific literate information (with only 12 percent of total statements classified as Child Talk).

Table 2
Three Types of Talk for Acknowledging the Child's Literate Awareness in Writing

Child Talk/Action Teacher Feedback	Child Action/ Teacher Feedback	Teacher Feedforward Child Action
"I can spell *eggs*." Writes *eggs*	Writes *can*	"You can write *of*." Writes *of*
"You can spell *eggs*!"	"You can write *can*."	

Child Talk. Child talk (40 statements) represented a vehicle for the child's self-initiated expressions of personal knowledge. The children's articulation of specific knowledge about literacy concepts provided the teacher with overt evidence of their current levels of understanding for these concepts. Their ability to verbalize this knowledge created a personal foundation for strengthening self-awareness. The following example illustrates the relationship between child talk, performance of the action, and the development of literate awareness.

Child Talk. "I know how to write *go*."

Performance of the Action. The child writes the word *go*.

Development of Literate Awareness. Talk and action focus the child's attention on the process of constructing the word *go*.

From a Vygotskian perspective, the child develops consciousness of an action during socially interactive exchanges with a more knowledgeable person. In the previous example, the child's development of literate awareness for writing the word *go* was shaped by the social structure of the story writing event. Prior to the development of literate awareness, the adult serves as the child's consciousness for the action, thus enabling the child to experience the activity via the language of the adult (Bruner, 1986). As the child's experiences accumulate, the child develops control over specific aspects of his knowledge and uses this information for self-regulating his personal literate performances (Camperell, 1981; Clay & Cazden, 1990; Diaz, Neal, & Amaya-Williams, 1990; Rogoff & Gardner, 1984). Clay (1991) described this form of cognitive control as a type of *inner control* which develops gradually and is associated with learning activity.

In this study, child talk represented a personalized tool for enabling the child to regulate his literate activity. The language itself focused attention on the literate action, thus strengthening the child's awareness level and promoting self-regulatory learning. Utilizing the theories of Vygotsky (1978), Blazer (1986), Dahl (1993), and Luria (1982) concluded that young children employ talk as an organizing device for self-directing their written language performances. In support of these findings, the current study illustrates how George and Allen employed talk as a tool for articulating their awareness of particular actions, thus exercising a more conscious—or deliberate control—for directing the performance of the activity. Furthermore, during the teacher-child construction of the literacy action, the child's self-expressions of knowledge represented a regulatory device for guiding the actions of the teacher. A typical example from a writing event illustrates this notion:

Jane: (writes the first word *The*) [The next word of the story is *dog*.]
Allen: I can write *dog*! I want to write *dog*.
Jane: (hands Allen the marker)
Allen: (correctly writes the word *dog*)

Teacher feedback talk. According to Clay (1991), feedback actions serve as a control mechanism for "keeping reading and writing productions on track" (p. 326). In this study, feedback talk (145 statements, 43 percent of total talk) was qualified by the teacher's ability to use language as an informative tool for describing the children's demonstrations of literate activity. Through verbalizing the performance of the action, teacher feedback talk served to enhance the children's awareness levels for the particular concept. The following examples illustrate the descriptive nature of teacher feedback talk for articulating the children's awareness of specific literate actions during writing events:

Child Action	*Teacher Feedback Talk*
stresses *i* sound	"You know the *i*, don't you?"
adds period	"You remembered to put your period."
writes *wool*	"You can spell *wool*, can't you?"

Results from writing events indicated that the most common type of teacher feedback talk occurred around letter-word and letter-sound correspondences (119 statements, 82 percent of total). The following examples illustrate the descriptive nature of teacher feedback talk for articulating the children's awareness of specific literate actions during writing events:

> George writes a capital letter for the first word in his story. Jane responds, "Ohhh, that's a nice capital *G*!"
>
> Allen articulates the word slowly as he writes it in his story. Jane says, "I like the way you're saying the word as you write it."
>
> Allen gives an accurate letter-sound correspondence. Jane responds, "Yes, it is an *r*. You have a good ear, don't you?"

Findings indicated that the teacher's descriptive verbalizations of the children's appropriate literacy performances provided powerful feedback information for assisting the children's reading and writing literacy. These findings complement work by Gallimore and Tharp (1990) who argued that appropriate types of feedback talk are accompanied by a standard of comparison, which provides the child with a model for assisting his or her own learning. In the current study, the teacher's feedback talk highlighted the children's appropriate uses for particular literacy concepts. Therefore, the children were provided with personal models of desirable literate behaviors for directing their future literate activities.

Teacher feedforward talk. Clay (1991) and Bruner (1978) described feedforward activity as a type of mechanism (like anticipation or prediction) that promotes the efficient use of information processing behaviors during reading and writing. Findings from this study indicated that feedforward talk (151 statements, 45 percent of total talk) was characterized by two important factors: (a) the teacher's ability to interpret the child's present level of awareness based on the child's demonstration of literate activity for a particular concept (e.g., Jane observed that George had previously written the word *on*); and (b) the teacher's use of language as a mediating tool for enabling the child to apply previously used knowledge to a new learning situation (e.g., Jane activated George's previously exhibited knowledge for writing the word *on* with her statement, "You can write that word *on*, can't you?").

Additional support for the power of feedforward talk is illustrated in the following episode from a writing event:

> Jane and Allen are writing a story with the word *give* in it. Based on her knowledge of Allen's ability to write his last name, Jane supports him in using this knowledge with her comment of "Give and Gibson begin alike, don't they?" Allen responds, "G." Later in the story writing event, Jane reactivates this knowledge as she says, "You know how to start *give*, don't you?" Then, she hands the marker to Allen, who writes the first letter *g*.

In this example, Jane used language to build an anticipatory context for Allen's successful transfer of the *g* sound (a known concept from his name) to a new learning situation. These findings suggest that the teacher can use feedforward talk to create opportunities for promoting fluent and flexible uses of the children's existing knowledge, thus strengthening their awareness levels for particular concepts of literacy.

Additional Results

Under Construct 1, an important factor involving the types of talk used for acknowledging the children's literacy awareness was the teacher's ability to respond contingent to the children's demonstrations of knowledge. Wells and Chang-Wells (1992) described this process as *contingency responsiveness* and *leading from behind*. In support of Clay's (1991, 1993a) work, the teacher's ability to build literacy conversations *around the known* promotes fluent and flexible learning with known concepts. Chang-Wells and Wells (1993) described the constructive process of building literacy as "a transaction in which what is already known is brought to bear on new information creating new meaning and enhancing understanding and control" (p. 58).

For instance, in the case of child talk (during which time the child's self-initiated response provides the evidence of knowledge), the teacher's role for enhancing self-awareness of this knowledge is represented in his or her ability to turn the task over to the child. Feedback and feedforward talk provide overt examples of how the teacher's responding patterns mirrored the child's demonstrations of knowledge, thus facilitating within the child a more conscious and deliberate control of known concepts.

An example of George's ability to recognize and express his literacy understandings occurred in Session 4. During the writing of a book about zoo animals, George selected a picture of a bear and immediately isolated the sound for *b*. Jane responded with explicit feedback, "That's good that you knew it started with *b*." The following conversation illustrates the child's ability to articulate his knowledge for linking first letter concepts and the teacher's responsive language for reinforcing this knowledge:

George: You know how I know?
Jane: How did you know?
George: It's in *book*.
Jane: Oh, okay! It's the same as *book*, isn't it? *Bear* and *book*.

Data from reading events provided evidence of Jane's feedback talk for praising and describing the children's attempts to perform appropriate literate actions. Although general praise (e.g., "Good job.") was often used to acknowledge the children's level of literacy performance, these statements were not included in data analysis. Results indicated that the primary use of feedback talk during reading events focused on the following behaviors: (a) one-to-one correspondence of spoken to written language (50 statements), (b) searching the pictures to support meaning for the story (13 statements), (c) rereading a line to confirm meaning for the story (14 statements), and (d) reading the story in a fluent and expressive manner (seven statements).

Data revealed that the most commonly occurring pattern of teacher feedback talk during reading events centered around the children's attempts to match spoken language to the language of the text (59 percent of total feedback during reading). In her session notes, Jane noted that George possessed a general awareness of print concepts but lacked the ability to accomplish one-to-one matching independently. Transcripts indicated that Jane used feedback statements (e.g., "I like the way you're pointing to your words.") to reinforce George's tentative attempts to match word-by-word reading. This praise was often followed by Jane's incidental pointing to the words as she and George read the next page together. The following example from Allen's sessions revealed that Jane utilized similar language for responding to Allen's pointing behaviors:

> Allen is reading a familiar story about five little ducks. On some pages, he reads the story so quickly that he does not attend to the print. However, when he turns to the page with the repeated pattern of "Quack, quack, quack, quack, quack, quack.", he slows his finger down and carefully matches his finger to all five words. Jane responds, "Ohhh, you're keeping up with it, aren't you?"

Detailed observations of children's reading and writing behaviors provide evidence that children may appear to control an action at one point in their development and at another point may experience confusion with the same action (Clay, 1991). The instability of early learning is characterized by fluctuating behaviors. As new learning is introduced, old learning may appear to temporarily regress (Tharp & Gallimore, 1988). Research by Ninio and Bruner (1978), Rogoff (1990), and Snow (1977) indicated that adults structure their language interactions to accommodate young children's displays of knowledge. Each of these studies has relevance for the current study.

As the data were searched for signs of the children's awareness levels, the insecurity of early knowledge about print became evident. Simultaneously, the importance of responsive talk was further emphasized. During interactive writing events, evidence of child talk, teacher feedback, and teacher feedforward talk was observed. For example, in response to George's demonstrations of literate knowledge, Jane used feedback and feedforward talk to guide George in using his knowledge in varied ways so as to promote fluency and flexibility. The following episode from Session 1 illustrates this process. It is based on the writing of a story about eating M & M candies.

> *Page 1 of the story*: The teacher guides the storyline to say "I ate an M & M." However, George changes the sentence to "We ate a M & M." He says, "I know how to write *we*." Jane responds, "Write *we*." George writes the word *we* independently and correctly. The story writing continues in a shared manner. Jane writes words that George cannot write, and George independently and correctly writes the two *Ms*.

Page 2 of the story: The teacher's talk is based on her observations of George's accomplishments on page 1. She says, "You can write *we*, can't you?" Instead, George writes an *M* for the first letter of *we*." Jane responds with a verbal demonstration, "That's a good try, but you know what? We need to turn it upside down. Turn it this way." George correctly makes the *w*, and the writing continues. Jane writes the words that George is unable to write and George independently and correctly writes the two *M*s. Jane responds, "You can write *M*! Getting good at this, aren't you?"

Page 3 of the story: The teacher's interaction is based on George's performances on pages 1 and 2. She is unsure of his ability to successfully write *we*. She decides to offer him the opportunity. She asks, "Do you want to write *we*?" George takes the marker and independently and correctly writes *we*. Jane responds, "Good job. I like the way you're making *we*." The writing continues. Jane writes the words George is unable to write, and George independently and correctly writes the two *M*s.

This episode is noteworthy for several reasons. First, it is important to recognize that George self-initiated the writing of both the word *we* and the two *M*s at the beginning of his story. However, the similarities of the two letter forms in one sentence temporarily disrupted George's ability to successfully complete the actions. Jane's interaction with George could be viewed as a feedforward type of talk for reactivating George's preexisting knowledge about the known form for *M*. From this viewpoint, the literacy situation was designed to provide George with opportunities to become fluent and flexible with his known concepts. Although new learning was not introduced, old learning was strengthened through the talk that supported the process.

Bruner (1974) described how the child's ability to successfully perform an action is facilitated by the reciprocal functions of feedback, feedforward, and knowledge of results. These theoretical concepts apply to the types of teacher talk used in this study for providing the children with feedback and feedforward information for shaping the children's literate awareness for particular concepts. These findings indicate the intricate nature of the three types of talk working together within a social context to promote within the child an inner control over known concepts. The following example illustrates how the total learning picture of a single episode is shaped by the three uses of talk for acknowledging literacy awareness:

Teacher Feedforward for Activating Child's Existing Knowledge
Teacher: "You can write *M*."
Child Talk for Expressing Knowledge of Letter Form
Child: "In *monkey*."
Teacher Feedback for Providing Explicit Information of Child's Knowledge
Teacher: "*M* begins like *monkey*."

Construct 2: Teacher-Child Talk for Assisting the Child's Literacy

As the data were further searched, a pattern emerged that indicated teacher-child talk was used to enable the child to actively engage in literacy events that were beyond his independent level of functioning. Two language structures for assisting the child's literacy activities were identified: (a) teacher-child talk for regulating participation in reading events, and (b) teacher-child talk for negotiating meaning during literacy events. The results from this construct will be presented according to each category of assistance.

Participatory talk for assisting literacy. Under Construct 2, the first type of talk focused on describing the various language structures used for assisting the children's participation levels during reading events. Multiple readings of a single book created a context for examining the influence of conversational dialogues on the children's developing awareness of reading literacy. Four major categories of participatory talk emerged that represented a shifting continuum of teacher-child reading control. These categorical findings are contrasted to participatory techniques identified by Doake (1981, 1985) in his examination of preschool parent reading interactions. In contrast to Doake's study (where books were read to the children), books in the current study were carefully selected by the teacher to provide the children with opportunities to develop fluent and flexible control of the reading process.

On a reading continuum, the first category of teacher-child participatory talk was coded according to the highest degree of teacher assistance. The teacher was the primary reader, with the child participating by articulating key words from the story immediately after hearing the teacher read the story. As the child's experiences with the language pattern accumulated, the child's level of participation in the reading event increased. At this point on the reading continuum, the teacher and child shared the reading of the text in unison. Analysis of the transcripts revealed that sometimes the teacher led the reading event; at other times, the child led the reading event. On a scale of high-to-low levels of teacher assistance, independent reading by the child represented the highest degree of child-regulated activity. Analysis of several readings of the same story indicated that a naturally occurring shift of reading control emerged as the children became more familiar with the story. The children's reading activity was analyzed in two ways: (a) descriptive analysis of teacher-child interactions during multiple reading events (see Table 3 for one example), and (b) the number of words read with and without teacher assistance (Table 4).

Table 3 describes the conversational scaffolding surrounding George's attempts to participate in the introduction and reading of a new book across two days. Analysis of the first day's reading revealed that George used several techniques for assisting his reading activity, for example: (a) he repeated the words of the title *My Book* (Maris, 1983) with his voice slightly trailing behind Jane's reading; (b) he attempted to repeat Jane's reading of the author's last name with a mumbled response; and (c) following Jane's talk about the dedication page, he touched the words *For Margaret*, and confidently read them as *my cat*.

In contrast, the next day's reading of the same story provides an interesting example of George's developing control for regulating the reading activity. Three noteworthy incidents occurred to indicate George's higher level of participation. First, George initiated the reading of the author's name. Second, George monitored the reading event to remind Jane that the dedication page had been overlooked. Third, George pointed to the words *For Margaret* and read them accurately.

In support of research on repeated readings (Askew, 1991, 1993; Beaver, 1982; Clay, 1991; Martinez & Roser, 1985), findings from the present study provided further evidence that multiple readings of the same story may increase the child's ability to predict his way through print by promoting anticipation for the most likely word choices, thus facilitating the child's more active participation in the actual reading of the story. As the children developed a sense of meaning for the story through multiple readings, they also began to notice the visual features of the printed language. Talk was not limited to story discussion, but also included conversational references to visual details of print (e.g., After George read the words *My light* without looking at them, Jane asked, "Where does it say *My light?*") and conversational references to appropriate reading behaviors (e.g., Jane said, "I like the way you're pointing to your words."). Within the familiar context of a supportive book, talk served as a tool for promoting the child's awareness of particular literacy concepts.

Table 3
Examples of Teacher-Child Talk

Day 1: Example of Teacher-Child Talk During George's Book Introduction to New Book

Teacher Talk/Reading	Child Talk/Reading
Look at this book. It's called *MY BOOK*. And it's by Ron Maris. He's the one who wrote the book. Let's look at this book. (Points to title and reads) [*MY BOOK*]. By Ron Ma[*ris*]	[*MY BOOK*] (slightly behind the teacher's voice) [*Mar*]is (in a mumbled voice)
And you know what? Sometimes, when people write a book, they dedicate it to a person. This is . . .(Points and reads) *for Margaret*. Maybe Margaret is his little girl.	I've heard this. (Points to the words "for Margaret" and says). "My [*cat*]."
(comes in on George's talk and points to the words as she reads) [*for*] Margaret.	
Day 2: Example of Teacher-Child Talk During Book Reading	
Do you remember this book? The one we read yesterday? [*MY BOO*] K	M[*Y BOOK*] by Ron [*mumbles author's last name*]
(enters reading during child's mumbled response to author's last name. [*By Ron*] Maris (validates child's attempt) Well, you even know the author! (joins in reading). [*MY Book by Ron Ma*]ris. (turns page, reads) [*My gate*]	(Initiates rereading) MY *BOOK by Ron Maris*] [*My gate*]
	(turns back to dedication page) Ohh! We forgot to do something!
Did we forget that other page?	(Points to the words and reads) *For Margaret*.

**Overlapping voices are indicated by [ ]

From a Vygotskian perspective, findings from this study complement research on teacher-child interactions that illustrate an increase in the child's cognitive control, which is evidenced by the transition from teacher-regulated to child-regulated literate activity (Au & Kawakami, 1984; Bruster, 1991; Clay & Cazden, 1990; Englert, 1992; Tharp & Gallimore, 1988; Wells & Chang-Wells, 1992). Vygotsky (1978) claimed that learning first appears during social and meaningful encounters with people and then appears within the learner. This process of moving from other-regulated learning to self-regulated learning is defined by the tools and signs of the learner's culture.

Table 4

Developing Control of Reading Activity According to Number of Words Read With and Without Teacher Assistance

Child/ Session	Teacher Reader (w/o Child)	Unison Readers (teacher-child)	Child Reader (w/o teacher)
George* (1st reading)	00	12	05
George (4th reading)	02	00	15
Allen** (1st reading)	41	44	15
Allen (2nd reading)	06	44	50

* Text Level 1 with 17 words ** Text Level 7 with 100 words

In the current study, the teacher and the children used language to assist the children's literacy performances during text reading experiences. Clay (1991) described the role of a familiar story as a tool for facilitating the child's move from the interpsychological plane (the teacher-child interactive sharing of the task) to the intrapsychological plane (the child's self-regulated independent reading of the story). "The child is using a different kind of support from the interactive sharing of the task with the teacher. Now the support is coming from his own prior reading. That familiarity is supporting his move toward further independence as a reader" (p. 184).

Negotiating talk for assisting literacy. "The mutual understanding that is achieved between people in communication has been termed *intersubjectivity*, emphasizing that understanding happens between people; it cannot be attributed to one person or the other in communication" (Rogoff, 1990, p. 67). In this study, a critical aspect of the child's cognitive growth resided in the abilities of the teacher and child to communicate a mutual understanding for constructing the literacy event. A breakdown in communication created barriers to the successful completion of this goal. Talk about literacy served as a conversational forum for exposing misunderstandings to social change, hence establishing groundwork for the mutual construction of meaningful dialogues (Wells & Chang-Wells, 1992).

Under Construct 2, the second category for assisting the children's literacy was classified as negotiating talk during drawing, writing, and reading events. The teacher and child used negotiating patterns for checking, clarifying, and extending meanings during various literacy conversations. The responsibility for constructing meaning was a shared experience, with the teacher (as the more knowledgeable participant) guiding the event to accommodate the child's demonstrations of literacy knowledge. The problem-solving collaboration between the teacher and child (i.e., the negotiation of meaning) was characterized as a transaction or a transformation of knowledge, which was cued by the teacher's observations and assessments of the child's displays of awareness for particular concepts of literacy.

Across various literacy events, a similarity existed between types of language used to regulate degrees of support and to negotiate responsibility. Examples of Jane's talk for inviting the children's participation in events include "Can you draw a great big hamburger?" (drawing); "You want to write the *r*?" (writing); and "Which book would you like to read?" (reading). Examples of the children's talk for seeking help in accomplishing the activity are "I can't draw the bun." (drawing); "I don't know how to write *fries*." (writing); and "I'll read it with you." (reading). In the following example, teacher-child language was used to negotiate the writing event. Of particular interest is the level of support that Jane provided to George in order that he could hear and contribute the *m* sound.

George: I can't write *am*.

Jane: I'll write the *a*. Can you hear something at the end? am-m-m-m.

George: m!

Jane: You can write the *m*. Good listening!

Talk during drawing. In this study, drawing was used as a complementary support system for story writing. Research on the interrelationships of drawing, writing, and conversations about written language (Barrs, 1988; Dyson 1985, 1989; Gearhart & Newman, 1980; Hubbard, 1989; Zalusky, 1985) is supported by data from the current study, which focused attention on the social negotiation of literacy as a vehicle for the joint construction of the drawing and writing event. Teacher-child conversations surrounding the drawing action contained descriptive language for negotiating responsibilities for the mutual construction of a meaningful picture. Simultaneously, the descriptive quality of the language served to enhance the children's awareness of the drawing action, thus representing a supportive system for organizing and creating a written story (Table 5).

In the following example, the importance of talk as a bridge for constructing literacy activity during drawing events is further illustrated. The example illustrates how Jane and George used talk as a tool for negotiating responsibilities for the drawing of a monster under the bed.

Jane: Now, you want to draw a monster under your bed? . . . Do you want to draw the bed?

George: You draw the bed.

Jane: I'll draw your bed. Here's the headboard. Here's the footboard. Here's your bed. What color is your monster going to be?

George: I think a monster is green.

Jane: A monster is green. Let's put him green . . . (Hands George the monster.)

George: (draws the monster).

In analyzing the conversations, the negotiating function of teacher-child language was embedded throughout the talk. When comparing the teacher's language for negotiating responsibilities during the *monster event* to the *hamburger event*, an observable degree of conversational similarity occurred. In both sessions, teacher-child language was used for the following purposes: (a) the teacher's use of language for inviting the child to draw, (b) the child's use of language for negotiating help for drawing, and (c) the teacher's use of language for describing her drawing actions and increasing the child's ability to contribute to the drawing task.

The findings on teacher-child conversations in this study support Teale's (1986) assertion that the critical factor in literacy development may be the language and social interaction embedded within the social structure of the literacy event. From this point of view, the talk itself accompanying the performance of the literacy action serves as a tool for promoting cognitive change in the child. Again, the emphasis on using teacher observations of the child's levels of awareness as a measuring instrument for regulating teacher talk appears to be an important contributor to the child's literacy development.

Table 5
Examples of Talk for Negotiating Responsibilities During Drawing Events

Purpose of Talk	Teacher Talk/Action	Child Talk/Action
T invites participation	Can you draw a great big hamburger?	
C seeks help		I can't.
T increases support	Well, do you want me to help you?	
C attempts action		I'll try.
T confirms response	You'll try to.	
C seeks help		I can't draw the bun.
T performs task and describes drawing actions	Okay, well, let's see. That looks like a good top bun. And then there's a bottom bun. . .right here.	
T invites participation	And then there's some things in between. What goes in between?	
C predicts		Lettuce.
T confirms	Lettuce. All right!	
T increases support	You want to put some green for lettuce?	
C accomplishes task		Uh huh.

T = Teacher
C = Child

Talk during writing. As with drawing, talk was employed as a tool for negotiating and regulating teacher-child responsibilities for constructing the writing event. Language and action served as complementary functions, with the goal of mediating a meaningful activity. As the child gained competency in the literacy act, the degree of teacher assistance was adjusted to accommodate the child's demonstrations of understanding. The following example typifies the shifting continuum of teacher-child negotiating talk in accordance with the child's increasing control for the writing event.

> Allen and Jane are completing the writing of a story based on eating M & M candies. Jane asks, "Now what are we going to call this book?" Allen turns to a blank page at the end of the book and remarks, "Hey, we got one more!" Jane responds, "Oh, yeah, we need to put something on that last page." Then, Jane attempts to link Allen's story to a similar story entitled *The Chocolate Cake* (Melser, 1990), which has a repeated pattern of *mmmm* on each page. She asks, "What do we say when something tastes really good? Do we say *mmmm*?" In response,

Allen expands on Jane's intentions and relates the last page of his story to the last page of the comparison story. He says, "We can write, 'It's all gone'."

This example illustrates how successful negotiation for the story's ending was regulated by Allen's demonstrations of knowledge for constructing an appropriate ending for the story. Throughout the episode, the balance of control shifted between the teacher and child. The first evidence of negotiation occurred when Allen directed the teacher's attention to the extra page in the book (e.g., ". . . we got one more!"). The second incident was particularly noteworthy because it illustrated Allen's ability to utilize the teacher's language as a tool for establishing a personal link to the story in creating his story ending (e.g., ". . . It's all gone."). In this episode, conversational talk about literacy served as a communicative link for promoting higher-level literate activity in the child.

From this perspective, intersubjectivity (i.e., mutual or intentional communication) is represented through negotiating patterns of teacher-child talk, during which the ultimate goal is the consensus of meaning for an event (Chang-Wells & Wells, 1993, Rogoff, 1990; Wertsch, 1984). During reading, writing, and drawing events, negotiating talk was used to facilitate a shared definition (Wertsch, 1984) for the constructive situation. Thus, an important factor in successful negotiation is the teacher's ability to monitor the child's literacy actions and to adjust degrees of linguistic support contingent to the child's level of understanding.

An example that illustrates this point occurred during a writing event, when the teacher's use of the label *little* to represent a lower case letter form (e.g., Jane invited George to "Make a little *d* on *Dog*.") sent a confusing message to George, who wrote a small capital letter *D*. This example signifies the importance of a mutual language for communicating teacher-child intentions for the successful construction of literate activity. Furthermore, in this example, successful negotiation for writing the correct letter form was accompanied by the teacher's verbal description of her personal action (e.g., As Jane wrote the letter form, she said, "That's a lower case *d*—or a little *d*."). Two important concepts are represented: (a) the notion of intersubjectivity (Chang-Wells & Wells, 1993, Rogoff, 1990; Wertsch, 1984), and (b) the concept of adjustable scaffolds (Bruner, 1986; Cazden, 1988).

Once again, the data in this study point to the use of language and action as informative tools for promoting the child's cognitive awareness of particular literacy concepts. Furthermore, results indicated that the negotiating function of these tools represented a vehicle for enhancing the child's known concepts, while concurrently drawing attention to new, unfamiliar concepts. An additional example from the writing event supports this assumption. As Jane said the word *Burger* slowly, Allen responded to the *r* sound. Following Jane's praise ("There is an *r* in it."), she used language and action to negotiate the writing for the preceding letters ("Let's put something else first."). Both participants shared responsibility for the mutual construction of the word, with the teacher directing the meaning-making encounter based on the child's display of literate awareness for the word-constructing process.

Talk During Reading. In examining teacher-child negotiating conversations during reading events, a similarity occurred between the language of reading and the language used for constructing drawing and writing awareness. The data revealed that teacher-child talk was used to mediate degrees of participation according to the children's levels of understanding. Conversations for co-accomplishing various types of literate activity were noted across time and children.

The following transcript (Table 6) represents a typical example of the negotiating functions of language and action for assisting the children's active performance in reading events. During Jane's introduction to a new book, *Spot Goes to the Park* (Hill, 1991), George participated by using the pictures to make valid predictions about the story line. For instance, his oral interpretation (I get my ball) represented a close approximation of the text language (I'm getting my ball). As the transcript depicts, Jane and George negotiated oral and textual responses, with the goal of constructing a mutual understanding for the new story. Furthermore, the transcript reveals that George displayed an ability to regulate Jane's actions for acquiring personal information about a word from the text (see lines 12-13). The brackets and underlined sections indicate overlapping utterances during text reading.

Table 6
Example of Negotiating Functions of Language and Action for Assisting George During Reading Event

Lines		Oral response	Text response
1	George:	I get my ball.	
2	Jane:	That's what he's saying,	
3	Jane:		I'm getting my ball.
4	Jane:		Wait [*for us, Spot*]. What's the [*hurry*]?
5	George:		[*for us, Spot*]. [*hurry*]?
6	Jane:	A turtle would say that, wouldn't he? A turtle is always moving so slow,	
7	Jane:	he would say, "What's the hurry?"	
8	Jane:		Hello, [*Spot*]. Don't chase [*the pigeons*].
9	George:		[*Spot*]. [*the pigeons*].
10	George:	I only have fun.	
11	Jane:	He says,	
12	Jane:		I only want to play.
13	George:	What does that word say? (Points to *play*)	
14	Jane:		play
15	Jane:	He just wanted to play, didn't he? Look at this!! It says:	
16	Jane:		Ooops, where did that [*ball go*]?
17	George:		[*ball go*]

Findings from this example indicated that George utilized talk as a personal tool for regulating his levels of performance during the reading event. Based on earlier findings from participatory structures (analyzed at the beginning of Construct 2 on assisted learning), George employed techniques such as echoing key words and unison reading to promote his own literate activity in the reading event.

Analysis of language structures across various literacy events revealed that Jane and the children used language to negotiate responsibilities for performing a particular literate action. Again, teacher talk focused on increasing accessibility for the child's successful participation in the event. Particularly interesting was the similarity of talk across reading, drawing, and writing events. For example, Jane's descriptive elaboration on the turtle's movements during the reading event ("A turtle is always moving so slow, he would say, 'What's the hurry?'") closely resembled the talk used during drawing events to elaborate on Jane's descriptive actions for creating a hamburger bun ("That looks like a good top bun. And there's the bottom bun. And there's some things in between."). This same type of descriptive language was also observed during actual writing events to describe Jane's movements for letter formation ("I'm going to make a *d*. It goes this way.")

At the same time, the children used talk for an additional purpose, which was to seek information for constructing their own learning. For example, during the reading event, George employed talk to seek knowledge about print, such as "What does that word say?" During the drawing event, George used talk to seek Jane's help for producing a bed, "You draw the bed." During the writing event, Allen used talk to gain information on how to write words, such as "I don't know how to write *jacket*."

The similarities between teacher-child conversations across reading, writing, and drawing events place a noteworthy emphasis on the importance of talk itself as a tool for shaping the child's construction of literate awareness. These findings suggest that the types of language used for constructing and negotiating literacy understandings share common characteristics, which are founded in—and guided by—a need to communicate specific literacy meanings.

Construct 3: Teacher-Child Talk for Communicating Knowledge About Literacy

The literacy development of young children reflects their experiences with more mature members of their society who already practice specific areas of knowledge (Forman, Minick, & Stone, 1993; Luria, 1982; Newman, Griffin, & Cole, 1993; Rogoff & Lave, 1984; Tizard & Hughes, 1884; Wood, 1980, 1988). In order to communicate particular information, adults say things to children in a way that they hope children understand. (Ninio & Bruner, 1978). Interactive conversations provide a natural environment for directing the learner's attention to specific elements of reading and writing literacy (Clay & Cazden, 1990; Holdaway, 1979; Lyons, Pinnell, & DeFord, 1993).

From this point of view, the child's literacy development is determined by the talk about literacy that surrounds the construction of the literate activity. During collaborative situations, Jane employed talk to awaken and shape the children's cognitive processes. These findings suggest that the teacher's emphases on particular aspects of literacy may have contributed to the children's awareness of—and understandings for—particular literacy concepts.

Under Construct 3, a preponderance of the data indicated that Jane's talk focused on communicating information about concepts of printed language (e.g., concept of punctuation ["And I'm going to put a period at the end."]; concept of letter ["That's a nice *b*."]; concept of spacing ["I have to squeeze it in here because there's not much room."]; concept of word ["That's a long word, isn't it?"]; and concept of sound ["I like the way you're listening to that *t* sound!"]). She utilized two language tools for transmitting these sources of information: (a) teacher talk for describing her personal literate performance of a particular literate action (e.g., "And I'm going to put a period at the end." [60 statements]) and (b) teacher talk for explicitly describing the child's personal literate performance of a particular literate action (e.g., "I like the way you're spacing. It makes it easier fo read, doesn't it?" [145 statements]).

Results indicated a high occurrence of talk centered around the following topics: (a) talk about concepts of book (e.g., "This is the author's name. That means he wrote it." [48 statements]); (b) talk about the child as a reader and writer (e.g., You're getting a lot of books that you've written." [92 statements]); and (c) talk for expressing enjoyment of the story (e.g., "I like the beat to that story, don't you?" [76 statements]).

As the data were analyzed across events in time, a pattern of teacher-communicated information emerged that indicated the children paid attention to and remembered what the teacher emphasized during reading and writing events. It is important to note that the transmission of particular information was embedded within the social and collaborative structure of a natural event. The following process illustrates the use of teacher talk for shaping the child's literate awareness for specific concepts of literacy: (a) the teacher communicated specific information for directing the child's attention to a particular literate action, (b) the child utilized teacher-communicated information for assisting his personal performance of the action, (c) the teacher provided specific feedback for highlighting the child's self-initiated use of the action, (d) the use of language and action represented a tool for promoting the child's literate awareness of the particular concept, and (e) the social and cultural structure of the event facilitated the natural communication of knowledge for constructing literate awareness. In support of Vygotskian theory, findings from the current study indicated that the child's literacy development was guided from the interpsychological plane (the teacher-child social encounter) to the intrapsychological plane (the child's cognitive awareness) through the performances of language and action.

To illustrate the process, a typical example from the present study depicts how teacher-communicated information for analyzing sounds in words served to channel the child's attention to the process of slowly articulating the sounds while writing the word. Within the natural literacy context of the story-writing event, the teacher employed language as a tool for promoting Allen's phonological awareness. To illustrate this point, when Allen initiated the use of a previously demonstrated teacher action (that of elongating the sounds within the word), Jane communicated immediate and explicit feedback, "I like the way you're saying the word as you're writing it." As the session progressed and Allen initiated the behavior on a new word, Jane used language to emphasize the child's literate action, "Does it help you to say the word as you write it?" In examining writing events across time, Allen continued to practice the action of slow articulation for analyzing letter-sound information.

Qualitative studies of adult-child interactions in natural literacy settings provide rich descriptions of conversational dialogues about written language (Bissex, 1980; Doake, 1985; Dyson, 1989; Fox, 1983; King, 1989; Lyons, Pinnell, & DeFord, 1993; Martinez & Roser, 1985; Newman & Roskos, 1992). Findings from these studies may be generalized to the current study, which indicates that a literacy-rich setting represents a natural medium for teacher-communicated knowledge about literacy. Rogoff (1990) described how the child's attention can be "channeled by adults' highlighting of events during social interaction" (p. 158). This notion is supported by data from the present study which indicate that within the social structure of a meaningful literacy event, the teacher's talk about specific aspects of literacy served to *channel* the children's attention to noting similar aspects of literacy.

A final example is given to illustrate how teacher-communicated information not only arouses the child's attention for noting particular aspects of literacy, but may also create a bridge for the child's construction of higher level literate awareness. As the data were searched, it became evident that the teacher and child often conversed about the title, author, and illustrator of books. Findings from this study suggest that teacher-child conversations about concepts of books may have enhanced the children's ability to notice new features of the printed language. This assumption is supported with evidence from a reading event with George and Jane, which indicates that George's attention to print expanded beyond the typical conversations of title, author, and illustrator to embrace new features of the printed language. Although the teacher had never discussed the publishing company or the symbol that represented the company's name, George inquired about these functions of print.

> George pulls over a familiar book to read. He opens the book to the inside cover page, points to a group of words, and asks, "What is this?" Jane responds, "That just tells who published it. Modern Curriculum Press published it." George asks, "Who published it?" Jane points to the words and reads them slowly, "Modern Curriculum Press. That's the name of the company." Then George points to a symbol on the page and asks, "What is that?" Jane answers, "That's just their little picture that represents the company. You're noticing everything, aren't you?" With this comment, George ends the conversation as he says, "Let's hear about it."

Vygotsky (1981, 1989) argued that a child's cognitive development stems from a conscious or deliberate understanding of literacy concepts. Clay (1991) described how children develop an *inner control* of literacy concepts which serves as a foundation for constructing new literate activity. In this study, the teacher's ability to use talk as a tool for cultivating the children's awareness of a particular literacy function served as an underlying framework for promoting conscious control of the literate action. Simultaneously, the children's ability to use talk for expressing personal understandings of literacy served as a mediating tool for fostering deliberate, conscious control over the action itself. From a Vygotskian viewpoint, the findings from this study support the theory of talk as a social tool for promoting young children's construction of literate awareness.

Conclusions and Implications

Although teacher-child talk was described under three separate constructs, the process of literacy development is not so easily depicted. The recursive and generative nature of language in shaping a child's literate awareness is epitomized in the many uses of talk for acknowledging, assisting, and communicating literacy. Woven within the social fabric of each individual construct were the traces of additional constructs. The findings from this study suggest that the teacher's ability to observe the children's levels of understanding, as evidenced by their ability to use language and action to express literate awareness of particular concepts, played an important regulatory role in the types of language used. From a Vygotskian perspective, the children's literacy awareness was shaped by the social structure of the event, which was simultaneously shaped by the degrees of linguistic support needed to communicate a mutual understanding for the construction of purposeful, meaningful literate activity. This point of view emphasizes the intricate nature of talk and action working together within the structure of the literacy event to promote within the child an inner control over particular literate activity.

Based on the findings from this study, four major conclusions can be drawn. First, teachers and children employ talk for acknowledging, assisting, and communicating about literacy. Furthermore, these types of talk do *not* work independently of each other, but rather harmonize together to shape the child's construction of literate awareness for particular concepts. Second, the teacher provides degrees of linguistic support which are contingent on the child's demonstrations of literate understandings for particular concepts of literacy. Third, children utilize teacher talk about literacy for guiding and regulating their personal constructions of literate activity. Fourth, language and action serve as complementary tools for shaping children's literacy constructions for particular concepts of literacy.

The results of this study indicate the importance of constructive conversations for promoting young children's literacy awareness. Although the present study is confined to individual literacy contexts, the implications for talk as an informative literacy tool also apply to group educational settings. Classroom settings that value and encourage talk for learning should be studied to determine the influence of the talk itself on the children's cognitive development. To add to the literature on classroom interactions (Au & Kawakami, 1984; Mehan, 1969; Wells & Chang-Wells, 1992), studies should be conducted that examine the types of talk used in various educational settings, such as collaborative peer groups, sharing time, basal reading groups, literature discussion groups, and large group instruction.

An additional implication from this study indicates the need for further research on the role of talk as an instrument for promoting the literacy development of at-risk readers. Clay (1991) advocated a literacy environment for at-risk readers that emphasizes an interactive social context for promoting successful reading and writing experiences. Although a limitation of the present study was the small sample of children, the in-depth analyses of conversational patterns indicate the importance of talk in the learning processes of two at-risk readers. Additional research is needed to examine the functions of oral language as an informative tool for enabling at-risk readers to develop critical understandings of literacy concepts.

References

Askew, B. J. (1991). Analysis of the comprehending process within the setting of Reading Recovery lessons: New insights. In J. Zutell & S. McCormick (Eds.), *Learner factors/teacher factors: Issues in literacy research and instruction* (pp. 229-237). Chicago: National Reading Conference.

Askew, B. J. (1993). The effect of multiple readings on the behaviors of children and teachers in an early intervention program. *Reading and Writing Quarterly, 9*(4), 307-315.

Au, K., & Kawakami, A. (1984). Vygotskian perspectives on discussion processes in small-group reading lessons. In P. L. Peterson, L. C. Wilkinson, & M. Hallinan (Eds.), *The social context of literacy instruction* (pp. 209-225). Orlando: Academic Press.

Barrs, M. (1988). Drawing a story: Transitions between drawing and writing. In M. Lightfoot & N. Martin (Eds.), *The word for teaching is learning: Essays for James Britton* (pp. 50-69). Portsmouth, NH: Heinemann.

Beaver, J. (1982). Say it! Over and over. *Language Arts, 59*(2), 143-148.

Bissex, G. (1980). *Gyns at wk: A child learns to write and read.* Cambridge, MA: Harvard University.

Blazer, B. (1986). "I want to talk to you about writing:" 5-year old children speak. In B. Schieffelin & P. Gilmore (Eds.), *The acquisition of literacy: Ethnographic perspectives* (pp. 75-109). Norwood, NJ: Ablex.

Brown, A. (1982). Learning how to read from reading. In J. Langer & T. Smith-Burke (Eds.), *Reader meets author/ bridging the gap* (pp. 26-54). Newark, DE: International Reading Association.

Bruner, J. (1967). *Studies in cognitive growth: A collaboration at the center for cognitive growth.* New York: John Wiley & Sons.

Bruner, J. (1974). *The relevance of education*. Middlesex: Penguin.

Bruner, J. (1986). *Actual minds, possible worlds*. Cambridge: Harvard University Press.

Bruster, B. (1991). *Instructional scaffolding: The effective use of teacher-student dialogue*. Unpublished doctoral dissertation, Texas Woman's University, Denton.

Camperell, K. (1981, December). *Other to self-regulation: Vygotsky's theory of cognitive development and its implications for improving comprehension instruction for unsuccessful students*. Paper presented at the annual meeting of the American Reading Forum: Sarasota, FL.

Campione, J., Brown, A., Ferrara, R., & Bryant, N. (1984). The zone of proximal development: Implications for individual differences and learning. In B. Rogoff & J. Wertsch (Eds.), Children's learning in the "zone of proximal development" (pp. 77-91). *New Directions in Child Development Series, 23*. San Francisco: Jossey-Bass.

Cazden, C. (1988). Social interaction as a scaffold: The power and limits of a metaphor. In M. Lightfoot & N. Martin (Eds.), *The word for teaching is learning: Essays for James Britton* (pp. 3-13). Portsmouth, NH: Heinemann.

Chang-Wells, G., & Wells, G. (1993). Dynamics of discourse: Literacy and the construction of knowledge. In E. Forman, N. Minick, & C. A. Stone (Eds.), *Contexts for learning: Sociocultural dynamics in children's development* (pp. 58-90). New York: Oxford University Press.

Clay, M.M. (1991). *Becoming literate: The construction of inner control*. Portsmouth, NH: Heinemann.

Clay, M.M. (1993a). *Reading Recovery: A guidebook for teachers in training*. Portsmouth, NH: Heinemann.

Clay, M.M. (1993b). *An observation survey of early literacy achievement*. Portsmouth, NH: Heinemann.

Clay, M., & Cazden, C. (1990). A Vygotskian interpretation of Reading Recovery. In L. Moll (Ed.), *Vygotsky and education: Instructional implications of sociohistorical psychology* (pp. 206-222). Cambridge: Cambridge University Press.

Cole, M., & Griffin, P. (1984). Current activity for the future: The Zo-ped. In B. Rogoff & J. Wertsch (Eds.), Children's learning in the "zone of proximal development" (pp. 45-63). *New Directions for Child Development Series, 23*. San Francisco: Jossey-Bass.

Dahl, K. (1993). Children's spontaneous utterances during early reading and writing instruction in whole language classrooms. *Journal of Reading Behavior, 25*(3), 279-294.

Diaz, R., Neal, C., & Amaya-Williams, M. (1990). The social origins of self-regulation. In L. Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociohistorical psychology* (pp. 127-172). Cambridge: Cambridge University Press.

Doake, D. (1981). *Book experience and emergent reading behavior in preschool children*. Doctoral dissertation, University of Alberta, Canada.

Doake, D. (1985). Reading-like behavior: Its role in learning to read. In A. Jagger & T. Smith-Burke (Eds.), *Observing the language learner* (pp. 82-99). Newark, DE: International Reading Association.

Donaldson, M. (1978). *Children's minds*. New York: W. W. Norton.

Dyson, A. (1985). Second graders sharing writing: The multiple realities of a literacy event. *Written Communication, 2*(2), 189-215.

Dyson, A. (1989). *Multiple worlds of child writers*. New York: Teachers' College Press.

Englert, C. (1992). Writing instruction from a sociocultural perspective: The holistic, dialogic, and social enterprise of writing. *Journal of Learning Disabilities, 25*(3), 153-172.

Forman, E., Minick, N., & Stone, C.A.. (1993). *Contexts for learning: Sociocultural dynamics in children's development*. New York: Oxford University Press.

Fox, C. (1983). Talking like a book. In M. Meek, C. Fox, H. Dombey, M. Whitehead, C. Walter, & B. Stierer (Eds.), *Opening moves: Works in progress in the study of children's language development* (pp. 12-25, Bedford Way Papers 17). Institute of Education, University of London: Turnabout Distributors.

Gallimore, R., & Tharp, R. (1990). Teaching mind in society: Teaching, schooling, and literate discourse. In L. Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociohistorical psychology* (pp. 175-205). Cambridge: Cambridge University Press.

Gearhart, M., & Newman, D. (1980). Learning to draw a picture: The social context of an individual activity. *Discourse Processes, 3*, 169-184.

Hedegaard, M. (1990). The zone of proximal development as basis for instruction. In L. Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociohistorical psychology* (pp. 349-371). Cambridge: Cambridge University Press.

Hill, E. (1991). *Spot goes to the park*. New York: G.P. Putman & Sons.

Holdaway, D. (1979). *Foundations of literacy*. Sydney: Ashton Scholastic.

Hubbard, R. (1989). *Author of pictures, draughtsman of words*. Portsmouth, NH: Heinemann.

Kantor, R., Miller, S., & Fernie, D. (1992). Diverse paths to literacy in a preschool classroom: A sociocultural perspective. *Reading Research Quarterly, 27*(3), 185-201.

King, M. (1989). Speech to writing: Children's growth in writing potential. In J. Mason (Ed.), *Reading and writing connections* (pp. 7-30). Needham Heights, MA: Allyn & Bacon.

Luria, A. R. (1982). *Language and cognition*. New York: Wiley & Sons.

Lyons, C., Pinnell, G., & DeFord, D. (1993). *Partners in learning: Teachers and children in Reading Recovery*. New York: Teachers' College Press.

Maris, R. (1983). *My book*. Auckland, NZ: Penguin.

Martinez, M., & Roser, N. (1985). Read it again: The value of repeated readings during storytime. *The Reading Teacher, 38*, 782-786.

Mehan, H. (1969). *Learning lessons: Social organization in the class*. Cambridge: Harvard University Press.

Melser, J. (1990). *The chocolate cake*. Bothell, WA: The Wright Group.

Moll, L. (1990). *Vygotsky and education: Instructional implications and application of sociohistorical psychology*. Cambridge: Cambridge University Press.

Newman, D., Griffin, P., & Cole, M. (1993). *The construction zone: Working for cognitive change in school*. Cambridge: Cambridge University Press.

Newman, S., & Roskos, K. (1992). Literacy objects as cultural tools: Effects on children's literacy behaviors in play. *Reading Research Quarterly, 3*(3), 203-225.

Ninio, A., & Bruner, J. (1978). The achievement and antecedents of labeling. *Journal of Child Language, 5*, 5-15.

Rogoff, B. & Lave, J. (Eds). (1984). *Everyday cognitive: Its development in social context*. Cambridge: Harvard University Press.

Rogoff, B., & Gardner, W. (1984). Adult guidance of cognitive development. In B. Rogoff & J. Lave (Eds.), *Everyday cognitive: Its development in social context* (pp. 95-116). Cambridge: Harvard University Press.

Rogoff, B. (1990). *Apprenticeship in thinking*. Oxford: Oxford University Press.

Schnickedanz, J. A. (1978). "Please read that story again!": Exploring the relationships between storyreading and learning to read. *Young Children, 33*, 48-55.

Sevigny, M. (1981). Triangulated inquiry—A methodology for the analysis of classroom interaction. In J. Green & C. Wallat (Eds.), *Ethnography and language in educational settings* (pp. 65-85). Norwood, NJ: Ablex.

Snow, C. (1977). The development of conversation before mothers and babies. *Journal of Child Language, 4,* 1-22.

Teale, W. (1986). The beginnings of reading and writing: Written language development during preschool and kindergarten years. In M. Sampson (Ed.), *The pursuit of literacy: Early reading and writing* (pp. 1-29). Dubuque: Kendall/Hunt.

Tharp, R., & Gallimore, R. (1988). *Rousing minds to life: Teaching, learning, and schooling in social context.* Cambridge: Cambridge University Press.

Tizard, B., & Hughes, M. (1984). *Young children learning.* Cambridge: Harvard University Press.

Vygotsky, L. (1978). *Mind in society.* Cambridge: Harvard University Press.

Vygotsky, L. (1981). The development of higher forms of attention in childhood. In J. Wertsch (Ed.), *The concept of activity in Soviet psychology* (pp. 189-240). Armonk, NY: M.E. Sharpe.

Vygotsky, L. (1989). *Thought and language* (newly revised). Cambridge: MIT Press.

Wells, G., & Chang-Wells, G. L. (1992). *Constructing knowledge together.* Portsmouth, NH: Heinemann.

Wertsch, J. (1985). The concept of internalization in Vygotsky's account of the genesis of higher mental functions. In J.V. Wertsch (Ed.), *Culture, communication, and cognition* (pp. 162-182). Cambridge: Cambridge University Press.

Wertsch, J. (1984). The zone of proximal development: Some conceptual issues. In B.Rogoff & J. Wertsch (Eds.), Children's learning in the "zone of proximal development" (pp. 7-18). *New Directions for Child Development Series, 23.* San Francisco: Jossey-Bass.

Wood, D. (1980). Teaching the young child: Some relationships between social interaction, language, and thought. In D. Olson (Ed.), *The social foundation of language and thought* (pp. 280-296). New York: W. W. Norton.

Wood, D. (1988). *How children think and learn.* Cambridge: Basil Blackwell.

Zalusky, V. (1985, March). Relationship between writing and drawing in first grade children. In J. Koroscik &T. Barnett (Eds.), *Proceedings of the Annual Meeting of the American Educational Research Association* (pp. 76-89). Washington, DC: American Research Association.

A NEW NATIONAL ALLIANCE: SPECIAL EDUCATION AND READING RECOVERY

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*LITERACY,
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WHEN THE NATIONAL CENTER FOR LEARNING DISABILITIES ISSUED its report, *Learning Disabilities: A National Responsibility* (1994), following the Learning Disabilities Summit in Washington, D.C., educators anticipated the immediate dialogue, the media coverage, the far-reaching proposals—at last—all demanding early and strategic intervention for young children having difficulty learning how to read and write. But no press coverage followed. No proposals came forth to help the neediest young learners.

When the International Reading Association (IRA) released a similar report, *Learning Disabilities: A Barrier to Literacy Instruction* (1995), a report that identified answers to save the youngest learners from failure—a research-driven approach to teach children to read and write—still nothing occurred. No press coverage. No media blitz. Nothing!

Perhaps the real message of these two reports is that it is time for a national collaboration between two forces in American education: Reading Recovery and special education. They must collaborate if educators really want to halt the relentless referral of young children to special education because of reading failure when over 90 percent can be saved—*recovered*—by strategic early intervention in the first grade.

The first report from the summit on learning disabilities called for studies to identify model programs and the most appropriate interventions for children with learning disabilities. Yet Reading Recovery has ten years of longitudinal research in the United States that shows its success as a first intervention and as a tool for both systemic change and as an agent for change within a school. The dialogue of the summit highlighted the overwhelming evidence that too many learning disabled children are failing under the current implementation of the Individuals with Disabilities Education Act (IDEA, 1978) in public education. Instead, " . . . effort must be made to provide assistance as early as possible" (p. 7). Yet nine out of ten first graders are succeeding with Reading Recovery and are thus diverted from special education.

The summit report hammers away at the need for effective early intervention. No one disagrees. In order to achieve their goal of success, the summit participants call for (a) research directed at intervention, (b) the identification of research-based practices that will help those with learning disabilities, and (c) channels to promote this information. Yet for ten years, all three components have existed with Reading Recovery for first graders having difficulty learning how to read and write.

Most interesting, the report issued by the International Reading Association more specifically isolates the common practice of slotting children who have difficulty learning how to read into special education. Although the placement is believed to be beneficial, it may hinder "the ability of trained professionals to adequately serve the students in a cost-effective manner" (p. 6).

The IRA report identified Reading Recovery as an excellent example of both a professional development model and a highly effective intervention model, " . . . a program designed to help students who are at risk of failure in reading and would often otherwise have been identified as learning disabled" (p. 10). Reading Recovery teaches children how to read, but Reading Recovery also reduces the number of children labeled with learning disabilities. With Reading Recovery, the lowest achieving first graders not only *catch up* (are *recovered*) to the average readers in their class, but they continue to learn and progress over time, to the second grade, the third grade, the fourth grade, etc.—thus its hallmark of *sustained success*. Near miraculous turnarounds are common.

Cunningham and Allington, in their book *Classrooms That Work: They Can All Read and Write* (1994), highlighted Reading Recovery: "No other remedial program has ever come close to achieving the results demonstrated by Reading Recovery. Reading Recovery has been equally successful in teaching young learning disabled children to read and in returning them to their classrooms" (p. 254). Cunningham and Allington pointed out that out of the 10 to 12 students serviced by one Reading Recovery teacher each year, 8 to 10 of these students never need further remedial instruction.

If, as the IRA report stated, research demonstrates that Reading Recovery can decrease the number of first grade students who had been classified as learning disabled, and if the placement of children in Reading Recovery "for 15 to 20 weeks of one-on-one instruction is far less expensive than placing them in special education for one year" (p. 11), then what are we waiting for?

This year, the Massachusetts legislature—for the first time—appropriated $500,000 for early intervention legislation that is written with language specific to Reading Recovery in order to prevent from qualifying other, non research driven interventions. This funding is currently paying the training of 81 additional Reading Recovery teachers who, by July, 1997, will have successfully discontinued approximately 500 first graders. After having conducted their own seven-month independent investigations of research relating to Reading Recovery, the legislative team confirmed (a) the high degree of success of Reading Recovery intervention to teach first graders how to read and write, (b) its ability to defer children from special education, (c) the ability of Reading Recovery to impact retentions, and (d) its cost-effectiveness (i.e., for every $3 invested in Reading Recovery, a school system saves $5).

Reading Recovery has a success rate nationwide ranging from 75 percent to as high as 94 percent and the child who achieves through Reading Recovery intervention sustains that success over time, over the following grades (DeFord, Pinnell, Lyons, & Young, 1988; DeFord, Pinnell, Lyons, & Place, 1990; Shanahan, Barr, Blackwell, & Burkhart, 1993). Special education cannot come within 55 percentage points of the lowest Reading Recovery success rate.

As the IRA report emphasized, the failure is not of special education, but of policy. IDEA encourages the labeling of children as *broken* when it may be the method, the program, or the delivery model that is broken. Labels of learning disability are counterproductive, yet the labeling—the stigmatizing—continues. Reading Recovery, however, does not view the child as broken or malfunctioning, only as a child who needs help early, strategically, intensely (one-on-one), and within an accelerated (not a remedial) model.

Therefore, if children are victimized by the failure of policy, then change the policy. The IRA report suggested a change of definition from learning disabled: that suggests that schools provide high quality intensive intervention. The report stated that, after only one year with Reading Recovery, at least 75 percent of at-risk children will be working on the same level as their classmates. Only the remaining students are truly learning disabled and need the training and support of special education.

But this is the real source of frustration for educators—we are already there! Everything that these reports seek for young children is in place now and has been successfully functioning in the United States for over ten years and internationally for over 30 years. And the long range research says we do not have to settle for a mere 75 percent success rate because with effort we can achieve a success rate of over 90 percent (Clay, 1995). Reading Recovery fulfills every requirement identified. "Reading Recovery is a way for a system to intervene for the purpose of preventing reading failure; it is preventative rather than remedial" (Lyons, 1994).

It is crucial to remember that a reading problem does not become a disability in the critical first grade; learning disability is not determined for life. It can be averted by short term, intensive, highly skilled intervention. By using Reading Recovery as the intervention strategy, a very high percentage of these children show no further need for intervention, as demonstrated by innumerable longitudinal studies (Clay, 1982; Clay, 1993; Lyons, 1995; Pinnell, 1990; Pinnell, 1991; Slavin, 1989).

Research conducted in Ohio (Lyons, 1994) over a five-year period through 1993 showed that less than one percent of Reading Recovery students were referred to special education (i.e., out of 5, 091 first graders, only 26 [0.51 percent] were referred). In fact, during the 1992-93 school year, Reading Recovery teachers served almost 37,300 children in 3,800 schools in North America with a success rate as high as 87 percent, although in Massachusetts, as one example, the success rate has soared as high as 94 percent (Fall River Public Schools, 1996). The U.S. Department of Education (Lyons, 1994) reported in an urban study that, out of 700 first grade students, Reading Recovery reduced special education referrals from 1.8 percent to 0.64 percent, resulting in an annual cost savings of $100,000 for that school district.

In one Massachusetts school district (Medford Public Schools, 1994), as one example of thousands of similar examples throughout the nation, 175 first-grade students have been successfully *recovered* over the past five years, but only five of the 175 have been identified for special education—less than 3 percent. The following examples from Massachusetts demonstrate the power of Reading Recovery to defer successfully discontinued students from special education for reading/literacy related issues:

1. District A: Of 147 discontinued students, only one student is in special education—under 1 percent. As the superintendent of that district says, Reading Recovery has had "a noticeable impact" (Fall River Public Schools, 1996).
2. District B: In their lowest achieving school, 60 students have been discontinued, but only six are in special education—10 percent—"but this figure is consistently over 20 percent" (Boston Public Schools, 1996).
3. District C: Only 5 percent of discontinued students have tested into special education (Cambridge Public Schools, 1996).
4. District D: During their first year training with two Reading Recovery teachers in two schools, all eight serviced children have been discontinued; seven are at grade level or above. Although one student has been referred to special education, all eight had originally been targeted for special education. According to their district director of special education, "Reading Recovery has proven itself as an early intervention prevention model. The current figure is one-tenth of what it would have been" (Arlington Public Schools 1996).
5. District E: Since 1993, no child has been referred to special education. "This figure is significant since these children were the lowest functioning in their schools, and, in most cases, had already been referred for a special education evaluation" (Melthuen Public Schools, 1996).

Regarding the cost effectiveness of Reading Recovery, District A above stated that, "Without Reading Recovery intervention, it is estimated (from past statistics) that 50 percent of the 147 program children would have been referred to special education, and 50 percent would have received Title I services. In addition, 8.6 students would have been retained and still would have required either Title I or special education services." This district estimates that special education services at $1,346,165; Title I services at $366,930; and retention at $33,050, for a total cost of $1,746,145. By subtracting the Reading Recovery cost of $385,048, this school district has a net savings of $1,361,097 (Assad, 1996). This cost analysis has attracted enormous attention throughout the State of Massachusetts and is credited with influencing the passage of Reading Recovery/ early intervention legislation in June, 1996.

The above data suggest that Reading Recovery does have the potential to reduce the escalating number of students diagnosed as having a learning disability while simultaneously verifying its cost effectiveness. So why place children in learning disability programs with no or limited success? Why maintain inequality when Reading Recovery has the potential to equalize almost all children? To continue this inequality verges on neglect or abuse of children. As Jonathan Kozol (1995) said, "The question is whether we want to be one society or two. Until that is dealt with, nothing else will be solved."

Although every educational support program is costly, what is more costly than the failure of a young child? What is more costly to the school district than continued failure over a student's twelve-year span of education? Yet, compared to other intervention strategies, Reading Recovery takes an average of only 40 hours over one-half a year, compared to, e.g., the average special education intervention of 1,620 hours over five to seven years. In fact, Reading Recovery was found to be a cheaper, shorter, and more effective. Reading Recovery is the most viable alternative to special education. Backed with over 30 years of research, Reading Recovery is the obvious first pre-referral program for first graders with reading or learning difficulties, especially since research suggests that once children are placed in special education programs that have limited success, the children rarely outgrow their disability (Lyons, 1994).

Information tracked by the Federal Department of Education (Miles, 1995) shows that more that 5.37 million children with disabilities were served during 1993-94. In fact, special education school-age children are "growing at a faster rate than the total number of school age children . . . . From 1976 to 1994, the proportion of learning disabled students has more than doubled, from 23.8 percent to 51 percent of all disabled students" (Schnalberg, 1995). Attached to this escalation is a matching price tag that totals in the billons nationally (and for Title I)—but with a minimal level of achievement that is often lost over a two-month summer break. Yet placing children in Reading Recovery for 15 to 20 weeks of one-on-one instruction/intervention is far less expensive than placing them in special education for one year.

The Economic Policy Institute (EPI) report, *Where's the Money Gone? Changes in the Level and Composition of Education Spending* (1995), examined nine school districts and found that these districts increased their per pupil spending by an average of 73 percent from 1967 to 1991, but less than one-fourth of the increase supported regular education. In 1967, regular education dropped from 80 percent of all spending to 59 percent in 1991. As the EPI report highlights, 60 percent of the money supported special population services.

Educators have answers to some of these challenges. Trained teachers can take the bottom 20 percent—the poorest readers—in any first grade and through early intervention can raise them to at least the average level of the class. The obvious answer is Reading Recovery, the most important first pre-referral for an at-risk first grader. Policymakers (national and state) need to talk, to share answers, to demonstrate effective, proactive, prescriptive programs. But right now, in the United States and the

English-speaking world, only Reading Recovery has the long-term research to demand attention.

Reading Recovery is the only systemic, long-term program in education that trains and retrains its teachers through planned revisiting and planned teacher professional development. It is the only educational program never abandoned after teacher training. And Reading Recovery possesses two traits absent in other educational intervention: it is accountable and it is backed by research.

Without a viable alternative to special education through early intervention such as Reading Recovery, one must keep in mind that (a) children who fail, fail early and fail often; (b) once a child is identified as a reading failure, the cost to the school district continues—in remediation, special help, special classrooms, and special materials; (c) reading failure is costly; the child who cannot read suffers from low self-esteem and has academic difficulties; (d) retention and remediation—coming on top of failure—do not help a child to catch up with his peers nor to function successfully in school; and (e) the consequences of reading failure do not end with a cost to the school or to the school district. Society bears the cost, too. Illiteracy often results in unemployment and a life of poverty. Since research has shown that special education intervention can neither *catch up* a student nor sustain success over time (Lyons, 1994), a collaborative model must be pursued. Instead, Reading Recovery, as an early intervention program for first graders, results in the childs (a) needing fewer special education services, (b) being retained in grade less often, and, in many cases (c) being indistinguishable from the other non handicapped classmates years after intervention.

Reading Recovery has grown from 56 students served in 1985 to over 100,000 in 1996. It has grown from 14 Reading Recovery teachers to 14,000. Reading Recovery has moved from a single school district to 49 states and eight Canadian provinces.

Kenneth Wilson, the Nobel prize winner in physics, in a recent speech at Harvard University to an audience of academics in higher education, referred to his recent book, *Redesigning Education* (1994), where he described the effective school programs of the future, programs that must include continuing professional development, reflective practice, quality control over the long run, successful scaling up, good marketing, and an acceptance of cost as a secondary issue to outcomes and achievement. Reading Recovery, he said, is one of only two educational programs to fit this description, and the development of all educational programs should be based on the successful Reading Recovery paradigm. Astounding! And all that Reading Recovery requires is support to reach the needs of the masses.

And as Marie Clay said (1995), Reading Recovery can easily discontinue (teach to read) 66 percent of enrolled first graders; with hard work, add another 25 percent on top of that. That is the success of Reading Recovery: it stipulates only what it can do, and it does it amazingly well. The goal of Reading Recovery is to untie the knots and tangles of the lowest first graders—the hardest to teach.

After ten years of Reading Recovery in the United States, over 90,000 first graders have made accelerated progress; they have caught up to their fellow first graders; they have become independent readers and writers. Reading Recovery is successful in urban and suburban communities and with ESL students, and Reading Recovery is now taught in Spanish. Its goal is to dramatically reduce the number of children who cannot read—and the evidence of that is compelling.

A sense of urgency exists. Educators must ensure that all children are literate. Society knows the consequences of illiteracy. Although success in the early grades is no guarantee of success throughout school and beyond, failure in the early grades does virtually guarantee failure in later schooling (Slavin, 1992). Doesn't urgency demand that we eradicate the current institutionalized path of failure? An alliance between Reading Recovery and special education has the potential to eliminate this path of failure. An alliance between Reading Recovery and special education serves the common purpose of saving children.

References

Assad, S. & Condon, M.A. (1996, Winter). Demonstrating the cost effectiveness of Reading Recovery: An example from one school district. *Reading Recovery Network News*, 10-14.

Clay, M.M. (1993). *An observation survey of early literacy achievement*. Portsmouth, NH: Heinemann.

Clay, M.M. (1982). Reading Recovery: A follow-up study. In M.M. Clay (Ed.), *Observing young readers: Selected papers*. Portsmouth, NH: Heinemann.

Cunningham, P.M., & Allington, R.L. (1994). *Classrooms that work: They can all read and write*. New York: Harper Collins.

DeFord, D.E., Pinnell, G.S., Lyons, C.A., & Place, A.W. (1992). *The Reading Recovery follow-up study* (Vol. XI, 1987-89). Columbus: The Ohio State University.

DeFord, D.E., Pinnell, G.S., Lyons, C.A., & Young, P. (1988). *Reading Recovery, Vol. IX, Report of the follow-up studies 1987-89*. Columbus: the Ohio State University.

Dyer, P. (1992). Reading Recovery: A cost effectiveness and educational outcomes analysis. *Spectrum, 19*(1), 10-19, Arlington, VA: Education Research Service.

Kozol, J. (1995). *Amazing grace*. New York: Crown.

Learning disabilities—A barrier to literacy instruction (1995). Washington, DC: International Reading Association.

Learning disabilities—A national responsibility. (1994). Washington, DC: International Reading Association.

Lyons, C.A. (1984). Reading Recovery and learning disability: Issues, challenges, and implications. *Literacy, Teaching and Learning: An International Journal of Early Literacy, 1*(1), 109-120.

Lyons, C.A., & Beaver, J. (1995). Reducing retention and learning disability placement through Reading Recovery: An educationally sound. cost-effective choice. In R.A. Allington & S.A. Walmsley (Eds.) (1995). *No quick fix: Redesigning literacy programs in America's elementary schools*. New York: Teachers College Press.

Miles, K.H., & Ruthstein, R. (1995, November 22) Where has all the money gone? *Education Week*, Washington, DC.

Pinnell, G.S. (1990). Success for low achievers through Reading Recovery. *Educational Leadership, 48*(1), 17-21.

Pinnell, G.S., Lyons, C.A., Bryk, A.S., & Seltzer, M. (1991). *Studying the effectiveness of early intervention approaches for first grade children having difficulty in reading*. Columbus: The Ohio State University.

Schnalberg, L. (1995, November 1). Record increase in special education students reported. *Education Week*, Washington, DC.

Seventeenth annual report to Congress on the implementation of the Individuals with Disabilities Education Act. (1995). Washington, DC: Office of Special Education Programs.

Shanahan, J., Barr, R., Blackwell, L., & Burkhart, A. (1993). *Reading Recovery: An independent evaluation of the effects of an early instructional intervention for at-risk learners.* Oak Brook, IL: North Central Regional Educational Laboratory.

Slavin, R.E., Karweit, N.L., & Wasik, B.A. (1992). Preventing early school failure: What works? *Educational Leadership, 50*, 10-19.

Slavin, R.E., & Madden, N.A. (1989). What works for students at risk: A research synthesis. *Educational Leadership, 67*, 4-13.

Where's the money gone? Changes in the level and composition of educational spending. (1995). Washington, DC: Economic Policy Institute.

Wilson, K., & Daviss, B. (1994). *Redesigning education.* New York: Henry Holt.

REPRINT

EARLY INTERVENTION IN CHILDREN WITH READING DIFFICULTIES: AN EVALUATION OF READING RECOVERY AND A PHONOLOGICAL TRAINING

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Rationale for the Research

Introduction

This report summarises the findings of a two-year longitudinal evaluation of the effectiveness of two different interventions designed to help six-year-olds who have made a slow start in their reading.[1] The two interventions studied, both delivered in a one-to-one setting, were Reading Recovery and a specifically phonological and less intensive programme (Phonological Training). Almost 400 children from seven local authorities participated in the evaluation: Bexley, Greenwich, Hammersmith and Fulham, Islington, Surrey, Wandsworth and Westminster. These authorities offer a diverse sample of children in terms of socioeconomic status and home circumstance. However, inner-city children are overrepresented in terms of the national picture.

The case for early intervention

The importance of investigating ways of helping young children who are struggling with reading is to some degree self-evident. Reading problems in childhood can cause distress to children and their parents, having an impact on children's self-esteem. As children progress through the primary year, reading difficulties will affect their ability to participate in many classroom activities, limiting their progress not only in English but in other subject areas.

Traditionally, children have not been offered additional help with reading problems until they have been in the school system for several years. However, there is a growing body of evidence to suggest that intervention should be offered at an earlier stage if it is to be effective. The reluctance to intervene at an early stage stems largely from the belief that it is not possible to identify children who are going to have intractable problems with reading until they have had several years schooling. However, assessments using pre-reading tasks such as letter recognition, and examination of children's concepts about print [2], or phonological awareness, can discriminate well between children of five and six years and are also highly predictive of their subsequent progress in reading.

The consequences of reading problems for children's learning

The negative consequences of reading problems are likely to increase with time. Early reading problems can initiate a causal chain of effects. Very quickly, poorer readers encounter less text than their peers. By the time children reach middle primary years it has been estimated that the least motivated children might read 100,000 word a year, while the average reader might encounter 1,000,000 words of text. The more voracious readers might read as many as 10,000,000 words. The situation is exacerbated by the fact that poorer readers are often given books to read that are too difficult for them. As word reading skill develops, more general language skills become the limiting factor on reading ability. But the greater reading experience of the better reader has provided an enormous advantage even here. Reading itself is an important contributor to the development of many language and cognitive skills. For example, much vocabulary growth probably takes place throughout the learning of work meanings from context during reading. Similarly, much general information is gleaned through reading. In short, much that facilitates further growth in reading comprehension ability—general knowledge, vocabulary, syntactic knowledge—is developed by reading. These feedback effects appear to be potent sources of individual differences in academic achievement.

Children who experience repeated failure in reading also become demoralized. This influences their self-esteem and may cause them to approach future learning tasks in negative, passive and inefficient ways. Poor reading may even lead to a drop in IQ. In a highly literate society the consequences of illiteracy can be very marked.

Early intervention versus remediation at a later stage

The research evidence points to the fact that, for reading difficulties, early intervention appears to be more effective than remediation at a later stage. Remediation of reading problems in older children has been found to be largely ineffective. However, there has been greater success with younger children in their first year or two of school. It may be that it is easier to prevent reading problems in the first place than to attempt to remediate them further up the school. Wasik and Slavin (1993) have recently reviewed one-to-one tutoring for preventing early reading failure. They looked at 16 separate studies of five different tutoring methods, all carried out in the USA, and found children's reading to be improved in nearly every case.

However, not all the interventions reviewed were equally successful. Those with the most comprehensive models of reading, tackling a broader range of reading skills, had the largest impacts over a wider range of reading skills. This observation is consistent with information from other sources. For example, Direct Instruction (DISTAR), an intervention that relies heavily on a word building, phonic approach, has been found to be effective at improving word reading and decoding skills but not reading comprehension.[3] In general, interventions with a narrow focus are in greater danger of missing their target, either because of the inadequacy of their model of reading or because they are only effective for a limited range of children, or a limited range of skills.

Programmes with a phonological focus deserve particular consideration in this context. On the basis of current knowledge, it seems likely that if there is a specific cause of reading disability at all, it resides in the area of phonological awareness. It is now fairly clear that reading progress is greater where there is explicit phonics teaching in the classroom than where there is not. There is also evidence to suggest that early interventions which include explicit phonic instruction are more powerful than those that do not. However, it is also the case that children can make better use of this type of instruction where it is taught in the wider context of reading meaningful and interesting text.

Beyond content, the effectiveness of any intervention depends on the quality of implementation, an obvious fact which is nonetheless frequently overlooked in research reports. It has also been a consistent finding that children learn more when they are taught by an enthusiastic and motivated teacher. A good way of encouraging enthusiastic and high quality instruction is through training, and Wasik and Slavin (1993) found in their review that programmes taught by more fully trained teachers were more effective.

How long do children maintain their gains?

Because tutoring is expensive (especially one-to-one tutoring), its lasting effects are of great importance. Despite this, few follow-up studies have been carried out. There is a tendency for remedial programmes to lead to short-term gains only. From the earlier discussion of the ever widening effects of reading problems, it might be expected that successful early interventions should have long-lasting effects. The evidence is limited because of the paucity of studies but there seems to be reason for cautious optimism, with the proviso that children may fail to make progress in areas that were not originally addressed in the intervention (for example reading comprehension under Direct Instruction).

Lessons from the research literature

In conclusion, preventing reading difficulties could greatly improve children's school experience and add to their success in later life. We know from cost-benefit analyses carried out by the developers of High/Scope[4] that this success can be translated into considerable financial benefits for society as a whole, for example by reducing the numbers of those who break the law or those on social benefits and by increasing tax revenue on income. There is strong evidence to suggest that early intervention, as opposed to later remedial treatment, stands the highest chance of success; but to be effective, it will require high standards of training and a reasonably extended period of intervention. Programmes with a broad model of reading seem likely to produce a wider range of improvements in reading, but some element of explicit phonic instruction seems advisable as well.

Aims of the research study

The main aim of the present study was to investigate practical ways of helping children in the early years of formal schooling, who had made a slow start in their reading. It was decided to evaluate two programmes, both with a proven track record, but with very different approaches. The first, Reading Recovery, is one of the most successful early interventions with a broad model of reading. The second, a phonological intervention closely based on that of Bradley and Bryant [5], is one of the most successful interventions (albeit in a research setting) with a narrower focus.

Bearing in mind the expensive nature of individual tuition, it was decided to monitor costs as well as effectiveness. It was also deemed important to investigate whether either one of these programmes was particularly suited to certain groups of children.

The interventions

Reading Recovery

Reading Recovery is a sophisticated intervention designed to help children who are in the bottom 20 per cent of their class after one year of schooling. It is best characterized as a preventative intervention, rather than a remedial programme, as many of the children who are offered Reading Recovery are barely reading at all. The aim is early correction of inadequate strategies used by these children so that they will become independent readers.

The features of Reading Recovery that mark it out as sophisticated reside not only in the programme curriculum but also in its attention to implementation issues. Clay argues[6] that, to work effectively, Reading Recovery must achieve change along four dimensions:

- behavioural change on the part of teacher;
- child behaviour change achieved by teaching;
- organizational changes in schools achieved by teachers and administrators;
- social/political changes in financing by controlling authorities.

The unusual attention to the educational system into which the programme must fit makes Reading Recovery unique, especially its inservice training and support of teachers. This relates directly to the argument made in the Introduction concerning the importance of the quality of instruction.

Experienced teachers are selected for training as teachers or tutors. Teachers' training takes one year during which the trainee teaches four pupils. They attend weekly seminars where they acquire skill in observational, diagnostic and assessment techniques and are taught about the model of reading that underpins Reading Recovery. Additional training is required of tutors who are certified to train and support Reading Recovery teachers in their Education Authority. The continuing support and monitoring role of the tutor is seen as crucial to maintain the quality of implementation in the post-training years.

The Reading Recovery teacher training is expensive. Some argue that such extensive training is unnecessary. However, Pinnell and her colleagues (1994) found that the programme ceased to be effective when implemented by teachers who had been trained in a much shorter course. The longer course is likely to ensure a more accurate delivery of the programme and to gain the commitment of the teachers, an element which has been identified as one of the hallmarks of a successful intervention.

Reading Recovery: the model of reading and learning

According to Clay, reading is defined as a "message-gaining, problem solving activity which increases power and flexibility the more it is practiced".[7] She suggests that children make use of a variety of strategies to help them in this problem solving activity, the most central of which are:

- their understanding of the concepts of print;
- their phonological awareness (both of the sounds in words and of the letters and letter strings on the page);
- their understanding of the meaning of the text;
- and finally, their knowledge of syntax.

Meaning is not derived from the print alone but also from the knowledge of the world that readers bring to the task, for example their knowledge of the language of books and language in general, their prior knowledge of the subject matter of the text and/or their ability to make inferences. The goal of Reading Recovery is to help children to use all the skills or strategies that they have at their disposal. An important aspect of this is to encourage children to monitor their own reading, detecting and correcting errors by checking responses against all the possible strategies.

Reading Recovery: selection, structure of the sessions, and discontinuation

The children who have been in school for one year (aged around six years old in New Zealand and the UK) and who are the poorest readers in their class are eligible for Reading Recovery. Selection is made on the basis of a battery of tests which cover concepts about print, letter identification, word reading, word writing and dictation, and the text reading level.[8] The precise selection is a clinical judgement, made on the basis of the child's profile of scores. It is recommended that the bottom 20 per cent of readers in the age band be offered the programme.

Once, selected, children are withdrawn from their class for individual tuition of half an hour daily, until they have reached the average reading level of their classmates. For the first two weeks, the teacher and pupil 'roam around the known,' reading and writing together in an unstructured supportive fashion, to build a positive relationship and to give the teacher information on which to build a structured sequence of activities.

Children graduate or are 'discontinued' from the programme when they have reached the average reading level for their class. Some children fail to reach a satisfactory reading level and it is recommended that they be referred to a remedial service. In any case, the maximum number of weeks recommended is between 20 to 26 weeks. The average number of weeks varies but would appear to be around 16 weeks in mature programmes.

A full review of all the research studies that have evaluated Reading Recovery was prepared by Jim Demetre in 1993 and can be seen in Appendix 1 of the Full Report.[9]

In Reading Recovery a typical tutoring session would include each of these activities, usually in the following order, as the format of the daily lessons:

• rereading two or more familiar books	text
• rereading yesterday's new book and taking a running record	text
• letter identification (plastic letters on a magnetic board) and/or words and word-making and breaking	letters
• writing a story (including hearing and recording sounds in words)	text and sounds
• cut-up story to be rearranged	text
• new book introduced	text
• new book attempted	text [10]

Phonological Intervention

The Phonological Intervention grew out of the work of Peter Bryant and Lynette Bradley, who were interested in the observed relationship between poor phonic awareness and subsequently delayed reading.[11] They devised an experimental intervention for six-year-olds with poor phonic awareness, closely based on Lynette Bradley's experience as a teacher.[12] The circumstances surrounding the development of the Phonological Intervention differ sharply from those of Reading Recovery, hence implementation issues were not considered, beyond ensuring that the researchers delivered the intervention adequately.

The Bryant and Bradley intervention

The intervention designed by Bryant and Bradley was based on their research into the normal developmental stages of phonological awareness. They had already found that preschool children who could not read were nonetheless able both to hear and to produce rhymes with evident relish. Bradley and Bryant argued that the most natural division of words into smaller sound units was that of onset and rime, i.e. *b + at; r + ing*. Thus their training placed emphasis on an awareness of various methods of sound categorisation, starting with rhyme and initial sounds. Its aim was to develop awareness of sound, concentrating at the outset on alliteration and rhyme but moving toward more sophisticated phonic distinctions in response to the child's progress. Each child was given 40 ten-minute, individual sessions, spread over two years. During these sessions, the children were introduced to a series of pictures of familiar objects. Typically, they would be shown three or four pictures, where all but one showed objects with a common sound, and would then be asked to identify the *odd one out*, in terms of rhyme, alliteration, etc. For example, the odd one out for the words *cat, mat, pen* and *bat* would be *pen*. Children were also asked to think of examples in their heads, especially as their training progressed. Plastic letters were used to make explicit connections between letter/letter groups and sounds.

In the resulting study, the children who received this intervention made significantly more progress than the Control children, with reading and spelling ages at least ten months in excess of the Control groups. They did particularly well in spelling.

The Phonological Intervention in the present study

In the present study, the content of the intervention was very similar to the sound and plastic letters intervention of Bradley and Bryant. However, it was not suitable to give the intervention over two years, as in the case of the original successful experiment. In the light of Bradley's unsatisfactory experience with a condensed programme[13], the 40 x ten-minute sessions were retained but spread over seven months instead of two years.

The phonological tutors, all of whom were experienced primary teachers, were given three days of training in the techniques required to teach the Phonological Intervention, spaced over three months, together with a training manual. They were also given an opportunity to rehearse their newly acquired skills with children not involved in the study. The tuition was given by researchers involved in the original Bradley and Bryant studies (Bryant & Bradley, 1985; Bradley & Bryant, 1985; Kirtley, et al., 1989), who administered the phonological programme in those projects.

Comparing the intervention

Both the interventions being evaluated have been found to be effective in the past, though the research on Reading Recovery has been more extensive. They both have in common their target population: six year olds with reading problems, and the fact that they are designed for individual tuition. However, each intervention is based on a different model of reading. Reading Recovery has been developed to offer children a complete teaching programme for the initial stages of reading, whereas the Phonological Intervention offers additional tuition in a specific area, that of phonological awareness. There is no intention that the Phonological Intervention should be a self-sufficient method of teaching reading. Thus the focus of Reading Recovery is wider, and the amount of time given to each individual child greater.

The interventions also differ in the history of their development. Reading Recovery was designed for use in primary schools on a national scale, whereas the Phonological Intervention was originally designed as a part of research on the process of reading development. As a result, Reading Recovery deals much more thoroughly with implementation issues, and a sophisticated system has been designed to cope with training and the ongoing aspects of programme maintenance. Issues surrounding both the accuracy with which a particular programme is taught over a period of years and the commitment of the teachers involved are absolutely crucial to the practical value of that programme. However, they are all too frequently ignored and the attention to this aspect of intervention is a hallmark of Reading Recovery.

Research methods

To evaluate the effectiveness of these interventions, we compared children who had received the programmes with similar children who received no special programme.

Sampling

Schools sampled

Reading Recovery programmes were evaluated in seven LEAs: Bexley, Greenwich, Hammersmith and Fulham, Islington, Surrey, Wandsworth and Westminster. The number of Reading Recovery schools sampled was 22. For each Reading Recovery school, the LEA was asked to identify two other similar schools which were then randomly assigned to the Control (18 schools) or Phonological Intervention (23 schools) condition.

Children in the sample

Six children were included in the study from each selected school. The six poorest readers in each school in the range six years to six years six months were selected. In the Reading Recovery schools, three or four of these bottom six readers entered the intervention programme in September and October 1992. Those children not selected for Reading Recovery formed the *within school* control group. In the Phonological schools, four of the six poorest readers in each school were randomly assigned by a member of the research team to the Phonological condition. The remaining two children formed the 'within school' control group for the Phonological schools. In the Control schools, all six of the bottom readers went into the control group. Table 3.1 illustrates the number of children in each condition at pre-test, at first post-test in June/July 1993 and at second post-test in May/July 1994.

Procedure

The reading abilities of all the children in the study were assessed on a battery of reading tests in September and October 1991, before the start of either of the two interventions. The children were then retested in June and July 1993 after the interventions were completed. There was a further follow-up in May, June and July 1994. Figure 3.1 presents the timetable of these events.

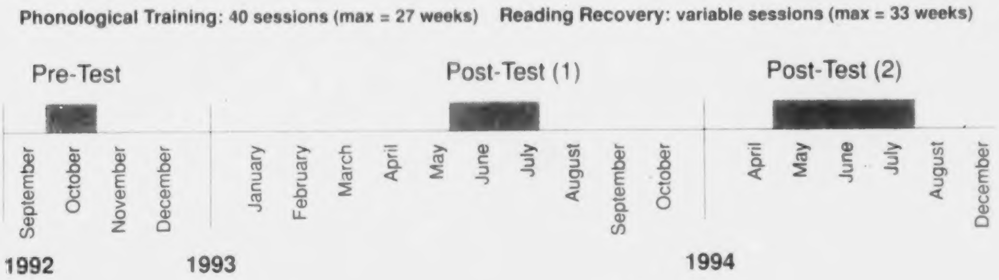
On the basis of the research design, four comparisons are made in the current report as follows:

1. Phonological children with control children in the same school ('within school' Controls).
2. Phonological children with control children in control schools ('between school' Controls).
3. Reading Recovery children with control children in the same school ('within school' Controls).
4. Reading Recovery children with control children in other schools ('between school' Controls).

Table 3.1
Sample

School/Experimental Condition	Number of Children Tested Sept/Oct 1992	 June/July 1993	 May/July 1994
Reading Recovery Schools (22)			
Children who received RR	95	89	92[14]
Within school Control children	41	40	36
Phonological Schools (23)			
Children who received Phonological Intervention	97	91	87
Within school Control children	46	44	44
Control Schools (18)	**111**	**109**	**107**
Total	**390**	**373**	**366**

Figure 3.1. Timetable of Research.



Measurement

Measuring reading ability in the lower achievers in this young age group is quite difficult. Many of these children are unable to read much at all. Two standard reading tests, the British Ability Scale Word Reading test (Elliot, et al., 1982) and the Neale Analysis of Reading (1988) were used. In addition, the tests used in the Reading Recovery selection procedure were used. The Diagnostic Survey (Clay, 1985) consists of a battery of five tests which takes about 30 minutes to administer and assesses lower-order reading and writing skills, letter identification, concepts about print; a word test, written vocabulary and dictation. In addition to the Diagnostic Survey, a Book Level was established for each child, as is the Reading Recovery practice. This entailed establishing which of a series of texts, graded by difficulty from 1 to 26 according to the Reading Recovery levels, children could read with 90 per cent accuracy.[15]

Phonological awareness was also assessed. Like letter identification, it is a measurable ability in pre-readers, which has been found to predict subsequent reading progress.

All of the above assessments were made at pre-test and first follow-up. At the second follow-up, the Clay Diagnostic Survey and Book Level were dropped as it was believed they would be too easy for many of the children by this stage. Instead, as a measure of spelling ability, the British Ability Scale Spelling test was used at second follow-up.

In addition to this extensive battery of tests, background information was also collected on each child: gender, age, ethnicity, take-up of free school meals both at the beginning and the end of the study, their number of days absent in Summer terms 92 and 93, and whether or not English was their second language.

Characteristics of the children in the study

The children who have taken part in the research have been drawn from seven different boroughs to offer a diverse sample in terms of socioeconomic status and home circumstance. However, inner-city children are overrepresented in terms of the national picture. For example the average percentage of children taking free school meals for England as a whole was 16 per cent at the time of the study, about half the figure for the schools involved in the evaluation.

Characteristics of the reading measures

Children's performance on all the reading measures at the beginning of the study were quite good predictors of their performance in nine months and 21 months later. However, some of the tests were rather insensitive for these children with very limited reading skills. When the children were first tested, many either failed to score at all, or scored very little in the three tests that measure reading rather than pre-reading skills. The Diagnostic Survey was the most sensitive measure for this ability range.

Initial differences between experimental groups

Reading Recovery, Phonological, and Control children were similar in terms of gender, social disadvantage and English speaking status. However, there were significant differences between children's average reading abilities. As was to be expected from the nature of the selection procedure, the Reading Recovery children were the poorest scoring group.[16] The children who attended the Control schools are also slightly more advanced readers on average than those children attending either Reading Recovery or Phonological schools. In order to compare like with like, we therefore matched children in the different groups on the basis of their initial reading ability.

The Effect of Reading Recovery and the Phonological Intervention on children's progress in reading and phonological awareness

In this evaluation, the heart of the matter is whether either of the interventions under examination can be demonstrated to improve children's reading in both the short and medium term.

Reading Recovery

Progress in the first year (intervention year)

The overall finding is that Reading Recovery is a very effective intervention, in the short term, for improving reading in this group of children in difficulty. For both sets of comparisons, within school and between school, Reading Recovery children made significantly more progress than the Control children on every measure of reading.

To take account of the fact that Reading Recovery children were significantly poorer readers on average at the beginning of the study, we created a group of matched controls[17], that is Control children with the same initial reading ability as the Reading Recovery children.

In the space of the eight or nine months between pretest and first follow-up, the Reading Recovery children made around 17 months progress in reading (Table 4.1). In the same time, the Control children in non-Reading Recovery schools made about nine months progress. The Reading Recovery children had made about twice as much progress as could be expected on the basis of standardised scores, and about twice as much as the Control children in non-Reading Recovery schools. The Control children in the Reading Recovery schools had made more progress than the other Control children, about 13 months as opposed to none, although less than the Reading Recovery children. It may well be that the classroom programme in Reading Recovery schools had benefited by the presence of the intervention in the school. Reading Recovery teachers and tutors made efforts to share Reading Recovery techniques with colleagues in their schools. Most of the classroom teachers in Reading Recovery schools (84 per cent) reported that having the intervention in their schools had made a difference to the way they taught reading in the classroom.

Progress in the second year (when no intervention was given)

One full school year later, Reading Recovery children had still made significantly more progress in all the reading measures than Control children in non-Reading Recovery schools. However, the gap between the two groups had narrowed somewhat.

Reading Recovery children still had a six months advantage in reading age over the Control children in non-Reading Recovery schools at second follow-up (Table 4.2). The Reading Recovery children had made 25 months progress in the space of 20 months. The Control children from different schools had made 19 months progress.

Table 4.1

The effect of Reading Recovery at first follow-up: a matched controls comparison

Mean Scores at first follow-up: Reading Recovery comparison

Reading Measures	Within Schools		Between Schools	
	Reading Recovery (28)	Controls (32)	Reading Recovery (83)	Controls (88)
Reading Age at the beginning of the study	4 years 11 months		5 years	
Word Reading (Reading Age)	24 (6 yrs m)	16 (6 yrs 1m)	20 (6 yrs 4m)	9 (5 yrs m)
Prose Reading	14	10	12	5
Book Level	16	9	14	5
Diagnostic Survey	0.8	0	0.5	- 0.6

The comparison between the Reading Recovery children and the smaller group of Control children attending the same school failed to reach statistical significance at conventional levels, though the Reading Recovery children had made consistently greater progress than Control children on every measure. Reading Recovery children had made four months more progress in terms of reading age (Table 4.2). The lack of statistically significant findings in this comparison within Reading Recovery schools is partly a result of the smaller sample size of this group. Another possible explanation is that the Control children in Reading Recovery schools may have benefited from an improvement in classroom tuition due to dissemination of Reading Recovery principles (programme 'leakage').

Phonological Intervention

Progress in the first year (intervention year)

The short-term effect of the Phonological Intervention was much more specific than that of Reading Recovery, and not as secure. The intervention successfully improved children's performance on the test of phonological awareness that most closely matched the training given in the intervention. However, this was the only area of skill where the Phonological children had significantly improved in comparison to the Control children attending the same schools (Table 4.3). The failure of the Phonological Intervention to show any but the narrowest effects in this powerful within-school comparison is powerful for two reasons. First, unlike the children in Reading Recovery schools, children in Phonological schools had been randomly assigned to experimental or control condition. Secondly, there was no attempt to disseminate the Phonological intervention to classroom teachers, although it is possible that the profile of phonics instruction was slightly raised in participating schools.

Table 4.2
The effect of Reading Recovery at second follow-up: a matched controls comparison

Mean Scores at Second follow-up: Reading Recovery Comparison

Reading Measures	Within Schools		Between Schools	
	Reading Recovery (29)	Controls (30)	Reading Recovery (86)	Controls (87)
Reading Age at the beginning of the study	4 years 11 months		5 years	
Word Reading (Reading Age)	40 (7 yrs 4m)	32 (7 yrs)	34 (7 yrs)	24 (6 yrs 6m)
Prose Accuracy	25	19	20	13
Prose comprehension	9	6	7	5
Spelling	21	18	18	14

Table 4.3
The effect of a Phonological Intervention at first follow-up: a matched controls comparison

Mean Scores: Phonological Comparison

Reading Measures	Within Schools		Between Schools	
	Phonological Children (n=91)	Controls (n=44)	Phonological Children (n=67)	Controls (n=67)
Reading Age at the beginning of the study	5 years 1 month		5 years 1 month	
Word Reading (Reading Age)	13 (5 yrs 11m)	14 (6 yrs)	14 (5 yrs 11 m)	11 (5 yrs 9 m)
Prose Reading	7	8	8	6
Book Level	7	8	7	7
Diagnostic Survey	- 0.2	- 0.1	- 0.2	- 0.5

In the comparison between Phonological children and children in Control schools, Phonological children, although making a bit more progress in reading than the Control children, were not significantly better off. Phonological children made a reading age gain of around ten months in the space of eight or nine months from pretest to first follow-up, as compared with the eight months gain made by the matched children in the Control schools (Table 4.3). However, the Phonological children had made significantly greater gains in their phonological awareness and on the Diagnostic Survey. The three areas of their performance on the Diagnostic Survey responsible for this were letter identification, the written vocabulary test and the dictation test, which is specifically scored for phonic word analysis. As has been found by other researchers, phonic interventions seem to be particularly powerful in helping children of this age to write and spell.

Progress in the second year (when no intervention was given)

At second follow-up, comparing the Phonological children with the Control children attending the same schools (the within schools comparison), the intervention showed a positive but relatively small effect on every measure, with particular emphasis on the non-word reading and spelling. However, none of these effects reached statistical significance. Children who had received the Phonological Intervention had made significantly more progress in reading accuracy (although not in reading comprehension) and in spelling, as well as in the directly phonological skills measured in comparison with Control children attending other schools. This pattern of results could be explained by the hypotheses that phonological interventions are particularly powerful at improving children's spelling skills, which given time will improve their word recognition. The fact that children's reading comprehension was not significantly improved is consistent with the findings of other evaluations of primarily phonics-based reading interventions. Interventions with a narrower model of reading tend to have a narrower effect.

The evidence of the effectiveness of the Phonological Intervention is mixed. Phonological children were better off in several ways than the Control children attending different schools, but not substantially better off than Control children attending the same schools. The phonological children had the same average reading age as Control children attending the same schools. However, they were three months ahead of the matched controls in other schools (Table 4.4). The Phonological Intervention is certainly less effective than Reading Recovery and the effects narrower.

Groups of children for whom the interventions were particularly effective

When we looked at how subgroups of children with different characteristics fared under either of the two interventions, we found that Reading Recovery was particularly effective for children taking free school meals. Reading Recovery was also particularly effective for the least able readers in our study. What is the explanation for this interaction between poverty and the effectiveness of Reading Recovery? Is it likely that a higher proportion of the socially disadvantaged children had less experience of books before coming to school It is not surprising that children with very limited reading experience find reading difficult. Reading Recovery offers them an intensive, daily programme of reading books in a carefully controlled environment which enriches them. For children from homes and communities where reading is more highly valued but who still find reading difficult, the explanations of their problems are more likely to include internal causes, for example some genetic factor. It is plausible that those children will be more difficult to help, and that the widening of their reading experience for a fixed time is not sufficient to overcome their long-term problems.

Table 4.4
The effect of a Phonological Intervention at second follow-up: a matched controls comparison

	Mean Scores: Phonological Comparison			
Reading Measures	Within Schools		Between Schools	
	Phonological Children (n=87	Controls (n=44)	Phonological Children (n=68)	Controls (n=68)
Reading Age at the beginning of the study	5 years 1 month		5 years 1 month	
Word Reading (Reading Age)	30 (6 yrs 1m)	31 (6 yrs 10m)	32 (6 yrs 11m)	26 (6 yrs m)
Prose Reading	17	18	18	15
Book Level	6	6	6	5
Diagnostic Survey	17	17	18	15

A summary of the intervention effects

Consistent with other research, Reading Recovery is found to be an extremely powerful method of improving children's reading and writing over a broad spectrum in the short term. Even in the longer term, differences between children in the Reading Recovery programme and children in Control schools are still highly significant, but the size of the effect is somewhat less. Reading Recovery children also make consistently better long term progress in reading and writing than Control children who attend Reading Recovery schools, although the differences are not statistically different. The fact that there was a systematic effort made to disseminate various aspects of Reading Recovery practice to the classroom teachers in the Reading Recovery schools may account for this. Socially disadvantaged children benefited particularly from Reading Recovery.

The effect of the Phonological Intervention is much narrower and less powerful in the short term. In the longer term, Phonological children made greater gains than the Control school children in reading as well as in phonological awareness and writing. This is consistent with our understanding of the role of phonological awareness in the development of reading. In the initial stages, children rely more on whole word recognition for reading but use their knowledge of phonics to write and spell. In the current study, children's use of phonics in writing strengthened their ability to analyse the sounds in words and ultimately improved their reading at second follow-up. However, the lack of any apparent intervention effects when comparing Phonological children with children attending the same schools is disappointing. These findings provide only mixed support for Bryant and Bradley's work (1985) where a very similar intervention was found to improve children's reading and spelling considerably. It is possible that the Phonological Intervention is more effective if the same number of lessons are taught over two years, as was the case in the Bryant and Bradley study, rather than over two terms as in the present research.

The cost effectiveness of Reading Recovery as compared with other forms of reading support

The cost of Reading Recovery has always been a matter of concern. It is an intensive intervention and demands a year's inservice training for each Reading Recovery teacher. However, it would be mistaken to assume that children eligible to receive Reading Recovery are otherwise inexpensive to educate. These children, in the bottom 20 per cent of readers, are usually offered other forms of specialised help in the absence of Reading Recovery.

Specialised reading help at school level

Information was collected on the specialised reading help given to every child in the present study (help by a teacher in addition to that given by their classroom teacher). The average length of time spent in Reading Recovery was 21 weeks, during which time children received an average of 77 sessions each of 30 minutes duration. Over a 39-week school year, children thus received an average of 59 minutes Reading Recovery weekly. Children in the Phonological group received 40 ten-minute sessions, making an average of approximately ten minutes weekly over a 39-week year. Table 5.1 shows the average number of minutes specialised help given to all the children in the two years during which this was monitored.

Reading Recovery children received substantially more help than the children in the other groups during the intervention year. However, the children in Control schools also received considerable amounts of specialised help with reading. In the intervention year they received a weekly average of 21 minutes help, one-third of the amount received by Reading Recovery children. After the interventions are completed, the levels of specialised help given to children in the Control schools were still being maintained, unlike the Reading Recovery group who received minimal help in the second year. If this pattern were to continue, both these groups of children would have received the same amount of specialised help by the end of the junior school.

The cost of additional reading tuition: the teacher

The cost in terms of a teacher's time for taking one child through the programme would be approximately £1,000.[18] If supply teacher rates of pay were used, the figure would be lower, around £780 per year.[19] The cost per child for teaching time for the Phonological Intervention was £354.[20] 20 The cost for the teacher's time required to give the Control children 21 minutes individual help weekly would be in the region of £280.[21] Table 5.2 shows the approximate cost of the specialised help given to the different groups of children participating in the study.

Effectiveness of specialised help

The costs of each form of tuition must be compared with their effects on children's reading. Comparing Reading Recovery children with those in the Control schools, the Reading Recovery group made 25 months progress in their reading age over a 20 month interval as compared to the 19 month progress in the Control group. Thus Reading Recovery children made five months 'more progress' than might be expected on the basis of the standardised test scores in the time involved. Control children made a month less progress in reading age than might be expected on the basis of standardised test scores despite the additional 21.5 minutes weekly specialised individual help over the two year period.

Table 5.1
Specialised Reading Help 92/93 and 93/94

Specialised Reading Help: Means

School/ Experimental condition	92/93 Minutes per week, excluding the intervention	92/93 Minutes per week provided in one-to-one interventiun	92/93 Total specialised help	93/94 Minutes specialised help per week	92/94 Average weekly specialised help over two years
Read Rec. Schools					
RR children	3 mins	59 mins	62 mins	10 mins	36 mins
Control children	9 mins		9 mins	10 mins	9.5 mins
Phonological Schools					
Phonological children	12 mins	10 mins	22 mins	17 mins	19.5 mins
Control children	7 mins		7 mins	20 mins	13.5 mins
Control Schools	21 mins		21 mins	22 mins	21.5 mins

Table 5.2
Cost of specialised reading tuition (teacher time only)

Specialised reading tuition

Type of tuition	Average cost of tuition per child during the intervention year	Minutes tuition weekly	Cost of tuition if given for one hour weekly	Average cost of specialised tuition over two years (1992-94)
Reading Recovery children	£780-£1,000	59	£780-£1,000	£1030
Phonological children	£354	10	£2124	£581
Control children in Control schools	£280	21	£840	573

It is also possible to examine more accurately whether the amount of help given to Control children bore any relationship to the progress they made in their reading. For each school year separately, progress in reading was compared with the amount of specialised reading help the children received. There was no evidence that the amount of specialised help (number of minutes) in either year was significantly related to children's reading progress. This is not to say that children in the Control group did not benefit from specialised tuition: some may have made additional gains, some may have fallen back. But, although specialised help differed greatly from school to school, the composite picture is not encouraging. Our findings are consistent with evaluation studies discussed in the Full Report. A recent evaluation of remedial programmes in the USA[22] found that many tended to be narrow in their focus (described by the authors as "skill-and-drill") and to result in actual loss of total reading instruction time for the children involved. The children who were withdrawn were missing classroom reading instruction. A recent UK report by the Audit Commission[23] on the quality of the learning experience offered by some special needs teacher in primary schools commented that lessons often lacked pace, that there was a lack of assessment, and in some cases there was a low level of pupil expectation.

For the two year period covered by the evaluation, each Reading Recovery child cost approximately £1,030 (£890 in the first year and £140 in the second year) in extra teacher time. For the same period, the children who received the Phonological Intervention cost an estimated £581 and the children in Control schools cost £573. We could measure no gain in reading that could be attributed to the expenditure of the £573 per control child, using either their gain in reading age as compared with the standardised scores, nor any extra gain for larger amounts of specialised help.

It is not sufficient to offer children specialised help: that help must be of a high standard. It could be argued on the basis of this evaluation that the specialised help given to the Control children was, in fact, the most expensive, compared with Reading Recovery and the Phonological Intervention, in terms of value for money.

The Phonological Intervention cost little more than the normal provision for these poor readers, but the Phonological children's reading and spelling were significantly better than that of the Control children in the Control schools.

Conclusions on the issues of cost-effectiveness

The cost of specialised help given to children on the Reading Recovery programme was considerably more than that spent on either the Phonological or the Control children. However, the cost gap between Reading Recovery and the other interventions had already narrowed between first and second follow-up, and it seemed likely that it would narrow further. This was due to the fact that a substantial amount of specialised help was offered to Control children with reading difficulties and it was offered in each year of the study, whereas the cost of Reading Recovery was concentrated in the intervention year. Moreover, there is some evidence that cost of Reading Recovery drops as teachers become more efficient in its use. Most of the teachers whose children have been evaluated in the present study were in their first post-training year. It is not possible to look at long-term cost benefits at this stage, but there are considerable long-term costs associated with illiteracy.

In terms of value for money, it seems fairly clear that the specialised help offered in the Control schools was the least cost-effective. For a marginally greater cost the

Phonological Intervention offered a significantly greater improvement in reading and spelling. The cost of Reading Recovery was substantially more in the short term, but then so was pupil progress. The costs of all forms of specialised help go beyond the school-based cost of the teacher. Training, management and monitoring are invariably involved and a cost of the Phonological Intervention. Much of the ongoing expense associated with Reading Recovery at LEA level is probably an essential aspect of any well run special needs section.

Summary and conclusions

Both interventions we evaluated have been shown to be effective in other studies. In the present study 180 children with initial reading difficulties were offered one or other of these interventions and compared with approximately 200 similar children who received their normal school programme (the Control children). Both the 89 children who went on the Reading Recovery programme and the 91 who received the Phonological Intervention on average made significantly better progress in various aspects of reading and writing when compared to the Control children. Effects of both interventions on the Children's reading progress were still apparent one year after the interventions had been completed.

Reading Recovery was the more powerful intervention, improving children's performance both over a wider range of skills and producing larger gains than the Phonological Intervention. However, it was also the more expensive. The Reading Recovery intervention was particularly effective for socially disadvantaged children who are overrepresented in special needs programmes.

We finish as we began by emphasising that the subject of this evaluation is of great importance. Children with reading difficulties suffer in our society and are disadvantaged as adults. Both on grounds of individual compassion and economic commonsense, the prevention of reading difficulties in children must be a priority. In the foregoing evaluation we have demonstrated that it is possible to tackle this problem effectively. We hope that our findings will be put to good use.

References

Allington, R., & McGill-Franzen, A. (1990). Children with reading problems: How we wrongly classify them and fail to teach many to read. *ERS Spectrum, 8*, 3-9.

Audit Commission. (1992). *Getting in on the act: Provision for pupils with special educational needs: The national picture.* London: HMSO.

Becker, R., & Gersten, R. (1982). A follow-up of follow through: the later effects of the Direct Instruction Model on children in fifth and sixth grades. *American Educational Research Journal, 19*, 75-92.

Bradley, L. (1981).The organisation of motor patterns for spelling and effective remedial strategy for backward readers. *Developmental Medicine and Child Neurology*, 23, 83-91.

Bradley, L. (1984). *Assessing reading difficulties: A diagnostic and remedial approach*, 2nd edition. London and Basingstoke: Macmillan.

Bradley, L. (1988). Making connections in learning to read and to spell. *Applied Cognitive Psychology*, 2, 3-18.

Bryant, P., & Bradley L. (1985). *Children's reading problems.* Oxford: Blackwell.

Clay, M.M. (1979). *Reading: The patterning of complex behaviour.* Portsmouth, NH: Heinemann.

Clay, M.M. (1985). *The early detection of reading difficulties: A diagnostic survey with recovery procedures*, 3rd edition. Auckland, NZ: Heinemann.

Clay, M.M. (1987). Implementing Reading Recovery: Systemic adaptations to an education innovation. *New Zealand Journal of Educational Studies, 22*, 35-58.

Clay, M.M. (1993). *The early detection of reading difficulties: A diagnostic survey with recovery procedures*. Auckland, NZ: Heinemann.

Meyer, L.A. (1984). Long-term academic effects of Direct Instruction Project follow through. *The Elementary School Journal, 84*, 380-394.

Schweinhart, L.J., & Weikart, D.P. (1993). *A summary of significant benefits: The High Scope Perry pre-school study through age 27*. Ypsilanti, MI; High Scope, UK.

Sylva, K., & Hurry, J. (1995). *Early intervention in children with reading difficulties: An evaluation of Reading Recovery and a Phonological Training. Full report*. London: School Curriculum and Assessment Authority.

Endnotes

1 A more detailed account of the research is available in the Full Report of this project, Sylva and Hurry, 1995.

2 Their knowledge of the most basic aspects of print, eg that print carries a message, that we read from left to right, the difference between a word and a letter, etc.

3 Becker & Gersten, 1982, Meyer, 1984.

4 Schweinhart & Weikert, 1993.

5 Bradley & Bryant, 1985.

6 Clay, 1987.

7 Clay, 1979.

8 Clay, 1985.

9 Sylva and Hurry, 1995.

10 Clay, 1993.

11 eg Bryant & Bradley, 1985.

12 Bradley, 1984, 1981.

13 Bradley, 1988.

14 Four children changed condition in the Reading Recovery schools, from Control to Reading Recovery. These children all received Reading Recovery late in the school year 92/93 and for a small part of the Autumn term 93/94. For first follow-up they were tested pre-Reading Recovery.

15 Level 1 texts are the simplest caption books suitable for children with very limited reading skills. Level 26 translates to a reading age of between eight and a half and nine and a half (Glynn et al. 1989, p. 9).

16 They were always the bottom three or four readers in their school, whereas the 'within school' Control children were the next poorest readers. The children in the Phonological Control schools were selected from the bottom six children.

17 Children in the matched groups were matched on the basis of their initial scores on the Diagnostic Survey. Statistical analyses were carried out on the full sample as well, and confirm the results shown for the matched groups. These analyses are available in the Full Report, Sylva & Hurry, 1995.

18 The Reading Recovery teacher's reported average salary worked out roughly as £1,000 per annum for each hour worked with pupils per week. This figure, which was for 92/932, does not include on-costs, National Insurance costs or superannuation.

19 Estimating £100 per diem, for 5 working hours, the cost of 1 hour per week for 39 weeks = £780.

20 This was the actual cost of teaching the children based on the research officer's salary (ie £17,000 pa including London weighting). This figure did not include training, traveling, supervision, etc.

21 Assuming an annual salary of £20,000 (including London weighting were applicable, but not N.I.C.s or superannuation).

22 Allington & McGill-Franzen, 1990.

23 Audit Commission, 1992.

THE MISCHIEF OF THE LOST LESSON: AN ANALYSIS OF THE SOURCES OF DISCONTINUITY IN READING RECOVERY SERVICES

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TWELVE TEACHERS IN READING RECOVERY TRAINING RECORDED REASONS for missed Reading Recovery lessons over a one-month period, and found that school-related activities accounted for more than twice those resulting from student and teacher absences combined. Following this initial finding, teachers implemented specific strategies over the remainder of the school year in an attempt to reduce the missed lessons caused by school activities and student absences. In spite of their efforts, school activities remained the major impediment to the consistent delivery of Reading Recovery services.

A key to the successful results shown by Reading Recovery (RR) programs is consistency and continuity in services to students. National Diffusion Network guidelines recommend that students get one-half hour of daily instruction.

The issue of engaged learning time is not new; educational research focused intensely on the subject in the 1970s. Blair (1986) summarized the general findings:

- Total instructional time in a specific curricular area is positively related to student achievement in that area,
- The proportion of academic learning time is positively associated with learning.

Murphy (1996) defined six categories to help distinguish between dimensions of time under the principal's or teacher's control:

- Opportunity time. The total amount of time available in the school day,
- Relevant instructional time. The amount of available time actually allocated to instruction,
- Allocated academic time. The amount of instructional time devoted to academic subjects,
- Instructional time. The amount of allocated academic time during classroom instruction,
- Engaged time. The amount of instructional time in which students are actively engaged in learning activities,
- Academic learning time. The amount of engaged time in which students are experiencing success rates of at least 80 percent.

Principals have primary control over the first three dimensions. Principals and teachers control the last three jointly, principals indirectly through organizational structures and support mechanisms.

While the need for continuity of instruction through consistent service to students is well established, the sources of missed Reading Recovery lessons are less apparent. The purpose of this study was to examine the sources in discontinuity in the delivery of Reading Recovery services to students in five public school districts in Oakland County, Michigan.

Method

Twelve teachers in Reading Recovery training at Oakland University participated in this study. Each teacher was a regular member of his or her school staff. As part of the internship for Reading Recovery certification, each teacher carried a caseload of four Reading Recovery students whom they were supposed to teach for one-half hour daily. Teachers in the study initially documented the frequency of lessons delivered to each student in October. If the student missed a lesson, the reason was recorded as either a teacher absence, student absence, or school-related.

Results of the October pilot illustrated in Table 1 indicate that school activities were the cause of missed lessons at a rate more than three times that of either student or teacher absences, resulting in more than twice the missed lessons for student or teacher absences combined. An analysis of school activities revealed they were not literacy-related. The source of school-based missed lessons consisted of assorted events (field trips, holiday parties, assemblies, and classroom theme activities such as making gingerbread houses). End-of-the-year celebrations and field trips contributed greatly to missed lessons in May and June.

Table 1
Results of October Pilot on Reading Recovery Lesson Continuity

Lessons Delivered	Child Absences	Teacher Absences	School Activities	Average Number of Lessons
83.7%	2.7%	2.8%	10.8%	20.7%

Following the October pilot, the twelve teachers tried to control absences during the remainder of the school year through use of the following methods:

- Calling parents when a Reading Recovery student was absent in order to get the student back in school,
- Reducing their own absences by keeping themselves healthy,
- Controlling school-related absences by asking principals for their assistance in scheduling activities away from Reading Recovery time.

During the ensuing period from November through June, teachers continued to document the types of absences incurred in Reading Recovery lessons.

Results

Table 2 contains a summary by month of the percent of Reading Recovery lessons delivered and the average number of lessons per month, taking into account the number of school vacation days. Results indicate that each month more than 80 percent of lessons were delivered with the exception of May (72.2 percent) and June (60.5 percent). The average number of lessons delivered per month was highest in October and March. Although months in which students received the fewest number of lessons were those with significant numbers of school holidays (December, April, and June), the lowest proportion of possible lessons actually delivered occurred at the end of the school year in May and June.

Causes of missed lessons illustrated in Table 3 indicate that in general school activities account for as many gaps in service as child and teacher absences combined. During the October pilot, as mentioned earlier, the school-related missed lessons were three times greater than either child and teacher absences. In June, when the number of lessons delivered was smallest, school-related gaps in service were more than five times greater than student absences, accounting for 27.5 percent of missed Reading Recovery lessons.

Table 2
Reading Recovery Lessons Delivered by Month

Month	Percent of Lessons Delivered	Average Number of Lessons Delivered
October	83.7	20.7
November	85.5	19.6
December	81.9	15.1
January	82.9	17.3
February	82.0	16.0
March	85.2	21.8
April	84.2	15.2
May	72.2	19.7
June	60.5	10.7
Year average	81.9	17.9

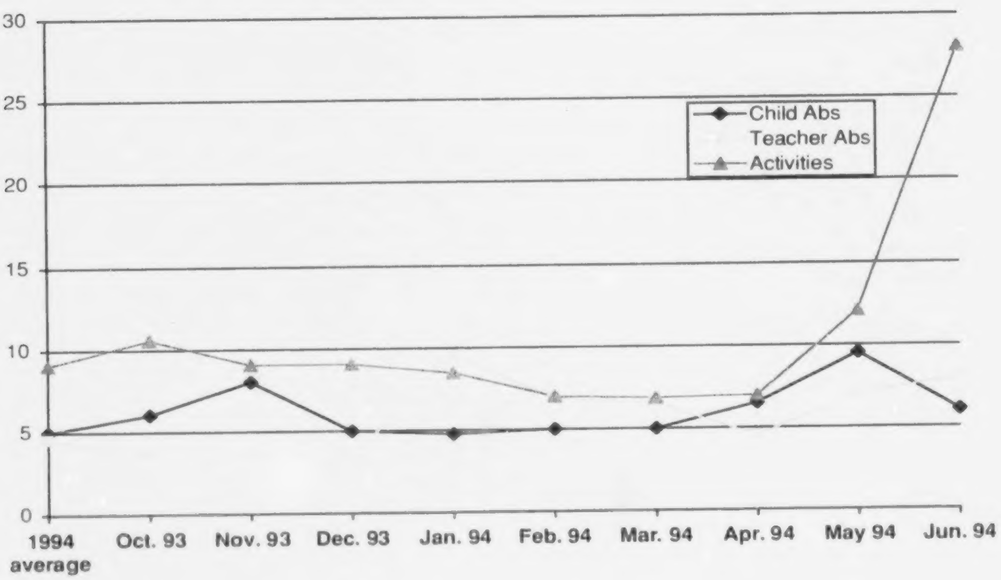
Table 3
Classification in Percent of Missed Lessons by Month

Month	Child Absence	Teacher Absence	School Activities
October	2.7	2.8	10.8
November	3.9	2.8	7.8
December	5.9	3.0	9.2
January	5.6	2.9	8.6
February	4.0	6.7	7.3
March	4.6	5.9	4.3
April	5.6	4.0	6.2
May	9.4	5.7	12.7
June	4.7	7.4	27.4
Average	4.9	4.2	9.0

These trends are illustrated graphically in Figure 1 with student and teacher absences remaining under ten percent across the school year, although students were absent from school most often in May and teachers most often in February. School activities shot above ten percent in October and May, peaking in June.

School activities accounting for the missed lessons included field trips, assemblies, holidays, and teacher interruptions for meetings. Principals participating in the study focused attention on the latter, attempting to encourage special education and child study committees to meet at Reading Recovery off-times. Standardized testing did not account for the lesson gaps; none of the participating schools administered them in first grade. The increase in missed lessons at the end of the year was caused by a variety of end-of-year events and pressures, including the need to use up field trip days and celebrations.

Figure 1. Comparison of Child Absence, Teacher Absence, and Activities.



Summary and Conclusions

The finding that school activities represented the major source of missed Reading Recovery lessons coincides with other research on academic learning time. As a rule, Karweit (1984) stated, noninstructional activities receive about the same priority as instructional ones and concluded, "It is clear that instruction is often not the major activity of the school day" (p. 34). In Murphy's (1996) framework, allocated academic time (time devoted to academic subjects) represents one of three dimensions under direct control of the principal. It is also that particular dimension which appears to impact continuity in Reading Recovery services. Principals might address the problem through attention to allocated academic time as a schoolwide goal, review of time usage with staff members, and revision or adoption of new approaches to allocating academic time. Further, principals can support both classroom and Reading Recovery teachers in their efforts to maximize the benefit of Reading Recovery services to students through continuous, uninterrupted service.

References

Blair, B., Jr. (1986). Educational reform: It's about "time." *The Clearing House*, 60, 38-40.

Clay, M. (1982). *Observing young readers*. Portsmouth, NH: Heinemann.

Karweit, N. (1984, May). Time-on-task reconsidered: Synthesis on research on time and learning. *Educational Leadership*, 32-35.

Murphy, T. (1996, March). Instructional leadership: Focus on time to learn. *NASSP Bulletin, 76*(542), 19-26.

PEDAGOGICAL REASONING: UNDERSTANDING TEACHER DECISION MAKING IN A COGNITIVE APPRENTICESHIP SETTING

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THE PURPOSE OF THIS STUDY WAS TO DETERMINE WHAT TEACHER reflections indicate about decision making within the Reading Recovery lesson. A qualitative study was used to illuminate decision making by an effective teacher. Data were collected through think-aloud protocols and reflective journals for two children across one year. Findings indicated kinds of decisions made when mediating learning from other- to self-regulation. Multiple sources of teacher knowledge and patterns across decision making were identified. Knowledge sources were discovered to be linked to pedagogical reasoning. The intricate nature of pedagogical reasoning and decision making revealed many complexities, which facilitate the child's cognitive apprenticeship toward becoming literate.

The complexity of teacher thinking and teacher knowledge highlights the nature of teacher decision making within a cognitive apprenticeship setting (Collins, Brown, & Newman, 1989). Decision making in which teacher and child are collaboratively engaged during a lesson has been referred to as in-flight, on-line, and on-the-spot (Borko, Cone, Russo, & Shavelson, 1979; Shavelson, 1983). In the Reading Recovery tutorial setting, on-the-run is a descriptive term for the fast-paced decision making that teachers encounter when teaching for cognitive strategies (Clay, 1993a).

Given the importance of reading instruction, there is a lack of reading research which addresses teacher decision making and teacher effectiveness based on student strategy acquisition (Duffy, 1993a; Duffy & Ball, 1986). Duffy (1993a) expressed the necessity of rethinking strategy instruction if it is to become a part of instructional practice in classrooms.

Researchers within the Reading Recovery network (Bruster, 1991; Dorn, 1994; Frasier, 1991; Pinnell, 1991; Shannon, 1990) have also expressed the importance of enhancing the knowledge base of teachers to make teaching decisions when helping children become independent readers. Shannon (1990) discussed the need for Reading Recovery practitioners and researchers to know more about systematic observation and responsive teaching, to know how to increase teacher learning through interaction, and to acknowledge the role of inquiry. "We need to know more about what teachers need to know, how they make decisions, and how they learn" (Pinnell, 1991, pp. 171-172).

During Clay's (1990) address to the American Education Research Association, she stated, "At all levels the magic is not in the teaching procedures; it is in the decision-making on individual programming made by well-trained professional staff" (p. 19). This statement highlights the importance of the exploration of teacher decision making within the context of Reading Recovery. Clay (1990, 1991), developer of the program, posits that the magic of successful teaching depends upon the quality of teacher decision making.

What constitutes that magic? What cornerstones build the foundation for teacher decision making? And what are the factors that enhance the quality of decision making? It was this paradigm of inquiry that directed the focus of this research study.

Method

The purpose of this study was to explore the nature of teacher decision making and teacher thinking upon which decisions are based within a cognitive apprenticeship setting. One teacher's reflections were examined to explore the decisions made by an effective Reading Recovery teacher. The question guiding this yearlong study was:

What do the teacher's reflections indicate about decision making within a cognitive apprenticeship setting of the Reading Recovery lesson?

This qualitative study of teacher decision making focused on case literature that has been developed for presenting the intersection of content, student strategy use in reading and writing tasks, and the pedagogy of teacher decision making as suggested by Shulman (1986b) and Brandt (1992). A single case study of an effective teacher's decision making that occurred during natural segments of instruction within a cognitive apprenticeship setting of the Reading Recovery lesson provided an explanation of teacher decision making and how those decisions were supported by pedagogical reasoning.

The Teacher and Students

At the time of the study, the teacher was teaching in the program for the fifth consecutive year. She was trained during the first year of program implementation in the independent school district where she taught. Prior to her teaching in Reading Recovery, her experience included four years as a special education teacher.

She was highly regarded by her colleagues as effective in program implementation. Her effectiveness was documented by the number of children she served each year and the longitudinal data substantiating their success in regular classroom settings. In addition, Reading Recovery university trainers and teacher leaders considered her an effective teacher.

Based upon multiple data sources, she seemed to have a strong theoretical, as well as practical knowledge base. Her understanding of the importance of teacher behaviors upon the effectiveness of student performance was evident in her autobiography as well as in reflective journal entries. For example, in her autobiography she stated, "Teacher behaviors have a tremendous impact on student learning, and once unproductive strategies are learned it is very difficult to change them." This teacher was one Shulman (1987) and Brandt (1992) envisioned as the kind of effective teacher who shares a "wisdom of practice."

Data were collected on four students. However, Nathan and Jessica were students selected to report for inclusion in the case study because their programs covered the span of one academic year with one served during the fall semester and one in the spring. They were also identified as being the lowest progress readers in their class at the time of selection into the program. Nathan entered Reading Recovery at the beginning of the school year in late August. His individual tutoring program was a total of 19 weeks with 72 lessons. As Nathan successfully discontinued from the program in January, Jessica was entering the program. Jessica's program lasted a total of 13 weeks with 42 lessons.

Procedures

Data collection occurred every three weeks for three consecutive sessions or lessons across individual student's intervention programs. There were six data collection periods in Nathan's program and five in Jessica's program.

Three major sources of data were analyzed. The primary source was a think-aloud protocol about decision making during the lesson. Protocols were self-reported and audiotape recorded by the teacher after each lesson for each child participating in the study. The teacher was asked to record reflections of her reasoning about the decisions made during the lesson. This request was considered a framework for the think-aloud protocol, but the teacher was encouraged to share any perspective regarding teacher decision making. The think-aloud protocols were collected at intervals defined by the parameters for data collection in the study, for a total of 35 protocols. The teacher's reflections were transcribed verbatim; they were analyzed at the idea-unit level for possible insights into the decision making process of the Reading Recovery teacher.

Second, reflective journal entries provided by the teacher for each child were coded and analyzed. Reflective journals offered another means of analyzing the teacher's thinking and decision making through written reflections. The teacher was asked to make an entry each week into each child's journal.

After data collection, the teacher served as the third source of data. Transcripts of interviews and interview field notes were analyzed to offer internal validity to the study. Member checks during the period of data analysis, after the initial year of data collection, provided necessary triangulation of the data. Student records and videotapes provided further clarification about decisions made for individual student programs. Detailed procedures are documented in the complete study (Elliott, 1994).

Analysis

The process of data collection and simultaneous analysis is recursive and dynamic (Merriam, 1988). It was through the constant comparative method that the analysis process evolved (Glaser & Strauss, 1967).

Each think-aloud protocol was analyzed at the idea-unit level. The idea-unit level can be thought of in terms of a word, phrase, sentence, or extended monologue for a single thought, musing, or idea.

Throughout data analysis, patterns emerged across teacher reflections. For better understanding of the magnitude of emerging patterns, a shift was made from the smaller, micro-unit of analysis, the idea unit, to a larger, macro-unit perspective which allowed the focus of analysis to shift to the large topic of discussion or concern. This unit of analysis was referred to as vignette analysis, a shift in content from one topic of discussion to another. Initial coding of categories, subsequent examples, and descriptions of emerging categories are provided in Elliott (1994).

Summary of Findings

The findings were documented by a preponderance of data from teacher reflections across two students' individual, Reading Recovery programs during one academic year. The major findings revealed: (a) five kinds of teacher decisions with supportive actions, (b) multiple sources of teacher knowledge, and (c) the existence of patterns across decision making. (See Elliott, 1994, for detailed presentation of findings.)

Teacher Decisions and Actions

Five categories of decisions (*To Prompt, To Plan, To Confirm, To Demonstrate,* and *To Hold a Tentative Theory*) were identified (Table 1). Most prominent was the teacher decision To Prompt, representing 51 percent of all teacher decisions. The decision To Prompt was given either as a question or statement to engage the child in reading or writing work, to *give it a try*, or to guide the child to initiate a problem-solving stance.

Close investigation revealed that the teacher also made decisions not To Prompt. These decisions were documented across both students' programs and were associated with the pattern of fostering independence.

Table 1
Teacher Decisions Across Cognitive Apprenticeship Programs

Teacher Decision Category	Examples Indicated By Teacher Comment
To Prompt	"Then I asked her with some questions to check the couple of consonants in there to confirm visually." "Also, yesterday I talked about the possibility of building with magnetic letters 'red' and 'bed' and 'fed,' but she didn't have any difficulty reading that part that says, 'and now I'm in bed with spots every place.' So I chose not to do generating or building those words. She was using the meaning of the story and I didn't feel like I needed to break it down and do that."
To Plan	"I wanted him to have an opportunity to notice the final 's' at the end for him to check."
To Confirm	"I wanted to comment to him and I did, that I was glad he was always thinking about the story."
To Demonstrate	"I modeled some slow articulation."
To Hold a Tentative Theory	"And I'll be anxious to see over the next two or three days, if his searching reflects that he's doing that more."

Decisions To Plan were made moment-to-moment within lessons as well as across lessons. They were responsive decisions planned by the teacher or made on-the-run resulting in an action or non-action. The teacher's decision to accomplish a specific task, to select specific materials of instruction, or to anticipate the child's literacy behaviors needed for future learning exemplified this category. Analysis revealed that without exception, teacher decisions To Plan were based upon teacher observation, the teacher's personal theory of reading, the teacher's personal theory of the child's responding, or any combination of this knowledge.

In the think aloud protocols the teacher not only reflected on her decisions, but also provided pedagogical reasoning and evaluation for those decisions. Such teacher behavior was especially reflected in decisions To Confirm reading and writing behaviors. Over half of the confirmed reading behaviors indicated that teaching for strategies was given high priority. Teacher decisions To Confirm represented responsive teacher decisions made to give feedback to the child. This decision praised, reinforced, or validated the child's thinking and reading and writing behaviors. These confirmations were specific to literacy behaviors observed by the teacher such as, "I complimented him on his fluency in the running record book, Buffy. On the running record, he wasn't using his finger to match, but he did seem to catch himself the four times where he said something that was not correct. He caught himself and I wanted to comment to him, so I did."

Decisions To Demonstrate revealed responsive teacher decisions made to show how and to provide examples to establish a new response, skill, principle, or procedure for the child. These decisions indicated that the teacher was closely following the child through teacher observation and providing responsive assistance through contingent teaching (Wells, 1986; Wells & Chang-Wells, 1992). Decisions To Demonstrate were either verbal, written, or in manipulative form, such as, "I decided to point out *chew* and *chase* and the *ch* chunk, and pull down the magnetic letters for her to see them."

Teacher decisions To Hold a Tentative Theory represented approximately 3 percent of all comments about teacher decisions. This decision illustrated the teacher's ability to operate with a tentative personal theory about the child's reading behaviors. Data analysis indicated that teacher decisions were coded as: (a) a teacher decisions To Hold a Tentative Theory, (b) as a teacher decision to plan to hold a tentative personal theory, or (c) as a statement of the teacher's reasoning regarding her personal theory of the child's responses. Regardless of how this notion was identified in the data, the teacher's intent was to continue observing the child's literacy behaviors in order to obtain new or additional information about the child for future decision making.

Teaching actions were associated with ways in which the teacher implemented decisions during teacher-child interactions. These means of assisting performance were identified as: (a) demonstrating, (b) confirming, and (c) prompting which was further described as questioning, linking, or instructing. These actions indicated ways the teacher mediated student learning through each child's zone of proximal development (Vygotsky, 1978). Interdependence of teacher actions for mediating student learning was documented. The teacher often provided a scaffold that combined ways of assisting student performance.

Sources of Teacher Knowledge

Multiple sources of teacher knowledge were distinguished as Knowledge of Child, Knowledge of Content, and Pedagogical Content Knowledge. These knowledge sources were discovered to be intricately linked to the teacher's reasoning for making decisions and were found to be the basis upon which decisions were made. The nature of pedagogical reasoning during moment-to-moment decision making was described through these knowledge sources. Data indicated that pedagogical reasoning was a way of thinking that facilitated discovering, formulating, and concluding based upon the teacher's multiple sources of knowledge.

Knowledge of Child included knowledge of child's individual characteristics and literacy behaviors and accounted for 31.5 percent of the three documented knowledge sources. This source of knowledge was represented by comments concerning the child's reading and writing behaviors or as statements that indicated the teacher's personal theory of the child's responses. The following reflective comment provides a clear example:

> I was also pleased that she was using meaning in her searching when she was trying to decide what the animals had eaten. She was verbalizing 'Now, what would that have been?' So I knew she was thinking about the meaning of the story.

Knowledge of Content was content specific to reading and writing and involved evidence of the teacher's understanding of ideas, facts, and concepts, and relationships associated with emergent literacy. This knowledge source represented 31.5 percent of all sources and described the teacher's personal theory of learning to read and to write. The following example duplicates the teacher's personal theory of learning to read and demonstrates her knowledge of how language structures provide additional opportunities for new learning.

> In the new book *The Chick and the Duckling*, there were a few places where searching was a challenge. For example, the text reads 'taking a walk' instead of 'walking.' This presents a new more complex opportunity for searching.

Pedagogical Content Knowledge was the teacher's understanding of her role in assisting children to read and write. This knowledge-base component supported the teacher's decisions related to the process of assisting a child to become a strategic, independent reader. Procedures specific to the Reading Recovery program were regarded as Pedagogical Content Knowledge. Also included in this category were statements about the teacher's personal theories of learning to read and statements reflecting the teacher's theory of the child's responses when stated in such a way as to reflect how to teach the child. Pedagogical Content Knowledge was reflected in 37 percent of the comments coded as teacher knowledge sources.

Patterns of Decision Making Across Time

Patterns or trends in teacher decision making were documented across time. The four prominent patterns were described as *Observation, Teaching for Strategies, Fostering Independence*, and *Decision Making On-the-Run* (Table 2). These patterns were associated with teacher decisions and teacher knowledge sources which fostered cognitive development from other-regulated to self-regulated reading and writing behaviors.

Table 2
Patterns of Decision Making Across Cognitive Apprenticeship Programs

Pattern	Examples Indicated by Teacher Comment
Observation	"When she was checking, *always* thoroughly saying it should be *a-l-l*, that's when I decided to show her the words *always, already*, and *almost* because they're all words that have that 'all' sound but are spelled with one '*l*.'
Teaching for Strategies	"On the new book, I purposely didn't tell him the stone was a stone when he went through the first time and said *rock* or *an ice cube* because I wanted him to use his beginning letter knowledge—that was one of my focuses and I figured the new book would be a real good place to do that."
Fostering Independence	"I'll need to remind myself to let Nathan take physical control of the book. I tend to take over that responsibility early on although I do it without really thinking."
Decision Making On-the-Run	"I don't think *stands on ends* is a phrase he's heard much or has ever used because that was really the only hard part. We did that several times and I had him pick any other page that he'd like to read for fluent reading instead of the whole book."

Observation, the most prominent pattern across decision making, was documented in 89 percent of the vignettes about the teacher's reflections. Teaching for Strategies was another well-defined and prominent pattern identified across instructional programs, documented in 61 percent of the reflection vignettes. Although Fostering Independence appeared as a discrete pattern in 25 percent of the vignettes, the notion of fostering independence seems implicit when teaching for strategies (Clay, 1985, 1993a). The pattern of Decision Making On-the-Run appeared to be inherent throughout the cognitive apprenticeship setting of Reading Recovery.

The findings revealed the complexity of teacher decision making in a cognitive apprenticeship setting and uncovered some of the subtleties of effective teaching that researchers contend are important in understanding the often elusive and complex instructional actions in teaching (Duffy, 1990, 1993b; Pressley, Goodchild, Fleet, Zajchowski, & Evans, 1989). As the complexities were uncovered, a theory emerged concerning the teacher's instructional decision making. These complexities or intricate components of decision making which guide individual paths to literacy and foster the child's cognitive apprenticeship toward becoming literate, provide a theoretical framework for understanding decision making, pedagogical reasoning, and teaching in a cognitive apprenticeship setting.

Discussion

It is important to consider the results in light of the parameters of this study. A qualitative case study of a highly effective teacher has been offered regarding her decision making when the goal was to foster independent behaviors in beginning readers and writers.

As a part of a larger case literature, this study contributes to the growing body of qualitative research on teacher decision making which is descriptive of cognitive strategy use. It is hoped that readers interested in teacher decision making and student strategy use will access this study to best meet their own needs. Much like doctors and lawyers who develop their own hypotheses and draw conclusions based on individual cases, the readers of this case study will be offered the same opportunities (Kennedy, 1979; Walker, 1980; Wilson, 1979). Lincoln and Guba (1985) viewed case studies as opportunities for discussion of the inquiry outcomes and may be most usefully thought of as lessons to be learned. The lessons are not generalizations, but working hypotheses that relate to understanding the phenomena. Therefore, the most significant conclusions drawn from this study may be those made by readers who contemplate the findings and discussion for their own purposes.

Decision Making: An Instructional Practice

Decision making appears to be a complex instructional practice which involves making numerous decisions supported by pedagogical reasoning. The decisions made by the teacher in this study also identified the actions and interactions of teacher and child, expert and novice, in the apprenticeship setting. Ways in which the teacher mediated student learning, moving from the interpsychological to the intrapsychological plane (Vygotsky, 1978), were revealed through teacher reflections regarding decisions which parallel cognitive apprenticeship methods, modeling, scaffolding, and coaching for successful teaching in a cognitive apprenticeship framework (Collins, Brown, & Holum, 1991). Decisions were based, in a large part, on the teacher's observation of the child's reading and writing behaviors. The teacher's personal theory of what the underlying assumptions imply about the surface reading and writing behaviors supported the teacher's decision making (Clay, 1991).

Many studies have explored the notion that routines play a central role in teachers' interactive thinking (Leinhardt & Greeno, 1986; Warner, 1987). Routines are thought to minimize conscious decision making during teacher-child interactions (Borko & Shavelson, 1990). Strong evidence in the literature suggests that decision making is only changed when well-established routines are interrupted by potential problems.

This hypothesis may be true for many teachers who rely on routine instructional decisions and actions as the vehicles to move their teacher-child interactions. However, it is not substantiated by this case study. As Duffy, Roeheler, and Putnam (1987) have advocated, the teacher in this study was a decision maker who assumed personal responsibility for curriculum and instruction rather than relying on any scripted plan. Rubin's (1989) perspective on teacher thinking would applaud such an autonomous teacher acting as a "self-regulating professional" (p. 31). The wisdom of practice demonstrated by this teacher supports Brandt (1992) and Shulman (1986a), who advocated developing a case literature that focuses on the intersection of content and pedagogy, bringing together teacher decisions and student strategy acquisition in reading and writing tasks.

The teacher decision To Hold a Tentative Theory represented a small percentage (3 percent) of all teacher decisions. It may appear that this finding is not worthy of being reported; however, the researcher perceives this finding to be important. This evidence documents that effective teachers demonstrate the ability to operate within a tentative framework (Clay, 1991).

Observation: The Basis for Decision Making

Observation of the child's reading and writing behaviors appears to be directly related to the teacher's tentative personal theory building (Clay, 1991) and the teacher's ability to be *contingently responsive* to the needs of the learner from moment-to-moment and across time (Wells, 1986; Wells & Chang-Wells, 1992). The teacher's responsive nature and ability to follow the child from early sessions in the program to lessons throughout the child's program are based upon sensitive and systematic observation (Clay, 1993b).

The observational comments indicated the teacher's priority to foster strategic reading. Observational statements also revealed teacher evaluation as an important feature in this effective teacher's practice of being contingently responsive.

A unique observational comment, referred to as an *Aha!*, provides tangible evidence supporting the cognitive dissonance idea of Meyers and Ringler (1980). The Aha! comment also supports Clay's (1991) notion that careful observers obtain information during sensitive observations in order to refine their personal theories of what it is to learn to read and of the child's responses.

Greater understanding is needed about the role of the teacher's awareness brought to the conscious level in order to act upon the observation. Werstch (1985) referred to conscious awareness as a special form of consciousness regarding intellect and affect. The dynamic organization of consciousness outlined by Vygotsky (1978) recognized that inter functional relationships are characterized by constant transformation and mutual influence.

Luria (1978) stated that consciousness is a complex form of organization of activity and not an *inner state*. The current study supports this notion in that the teacher is engaged in the activity of realizing and interpreting what observations of the child's reading and writing behaviors mean about the child's underlying cognitive functioning.

Further organization of this activity involved the assimilation of knowledge into a kind of transaction during instructional interactions.

The teacher's decisions and subsequent actions may be prompted by unexpected events or observation of the child's unexpected reading behaviors. However, it is the teacher's ability to maintain a stream of consciousness during decision making that allows access to knowledge sources supporting pedagogical reasoning.

It may be important to be looking for the Ahas in our observations of children's literacy behaviors and to reflect upon the observations in such a way as to analyze what these surface behaviors indicate about the child's cognitive processes. Cognitive dissonance that is sparked by the Ahas may further the teacher's own cognitive apprenticeship *in learning from the child* the best ways to support learners moving from teacher-regulated to self-regulated behaviors.

The teacher's reflective comments offer a framework for thinking about the complexity of decision making which fosters student use of cognitive strategies when reading and writing continuous text. These reflections indicate that central to the decision making process is the teacher's observation of the child's reading and writing behaviors.

Teacher Knowledge Sources: The Basis of Pedagogical Reasoning

Intricately woven into the fabric of the teacher's reflections are her reasons for making certain decisions. Teacher comments provided a window into teacher thinking and reasoning through which intricacies of decision making were more closely analyzed. Frequently, comments offered insight into multiple sources of teacher knowledge associated with reasoning which supported decision making.

Johnson (1993) viewed theory as making sound teaching decisions on-the-run. Capturing craft knowledge as discussed by Leinhardt (1990) encompasses the totality of the action-based, situated knowledge of teaching. This study of teacher decision making documents that theory is embedded in the wisdom of practice.

The teacher's wisdom of practice was made known through instructional decisions and actions indicating her pedagogical reasoning supported by multiple knowledge sources (Brandt, 1992; Buchmann, 1980; Shulman, 1986a, 1986b; Wilson, Shulman, & Richert, 1987). The teacher's pedagogical reasoning permeated decision making, an instructional practice intricately associated with teacher actions.

Teaching for Strategies, Fostering Independence, and Observation as the basis of decision making may be linked with teacher knowledge sources: Pedagogical Content Knowledge, Knowledge of Content; and Knowledge of Child, adapted from the work of Shulman (1986b). The teacher transforms her knowledge of content into instruction as she performs teacher actions to carry out decisions (Wilson, Shulman, & Richert, 1987).

Think-aloud protocols described teacher-child interactions indicating Pedagogical Content Knowledge. These descriptions appear to be evidence of cognitive apprenticeship in action. Supporting Duffy, Roeheler, and Putnam's (1987) conclusion that *responsive elaboration* is an effective instructional component that cannot be prescribed in a static script, responsive teaching requires that teachers must reason how students are responding and decide what spontaneous, dynamic, and fluid interactional exchanges must take place. This study makes visible the process for fostering strategic reading through cognitive apprenticeship (Collins, Brown, & Holum, 1991).

The outcome of pedagogical reasoning is the power to think, to discover, to formulate, to reflect, and to conclude based upon multiple sources of knowledge. Teacher theory proved to be a significant feature in decision making, supporting Clay's ideas that through sensitive observations, teachers formulate their own personal theory of the observation and what it means (Clay, 1991). In this way, through sensitive observations, personal theory is built, adding to the teacher's knowledge sources.

Multiple sources of knowledge appear to be cornerstones of teacher reasoning. These knowledge sources are ever changing, as is the dynamic organization of consciousness in teachers who are effective in fostering independent readers. Pedagogical reasoning permeates decision making supported by the teacher's consciousness of dynamic sources of knowledge.

The Intricate Nature of Pedagogical Reasoning and Teacher Decision Making

An intricate nature of pedagogical reasoning and teacher decision making within the Reading Recovery lesson was revealed in this study. While reflecting on-the-run during lessons, teachers make many choices among numerous possible decisions, then enact those choices of specific action based upon pedagogical reasoning supported by knowledge sources. The teacher assimilates new information about the child into her existing Knowledge of Child. Almost simultaneously, the teacher considers knowledge of content in relation to the reader's emergent literacy behaviors, anticipating her next teaching moves and interactions with a particular child. During on-the-run decision making, teachers rely upon Knowledge of Content, the knowledge of what it means to learn to read, and upon Pedagogical Content Knowledge and how to transform this knowledge into instruction (Shulman & Sykes, 1986).

Synthesis of multiple knowledge sources across time provided the teacher in this study with pedagogical reasoning upon which she could quickly base her next teaching move. Engaging in this process during decision making, teaching, and reasoning, the teacher came full circle when she evaluated her teaching decisions by offering other reflective comments.

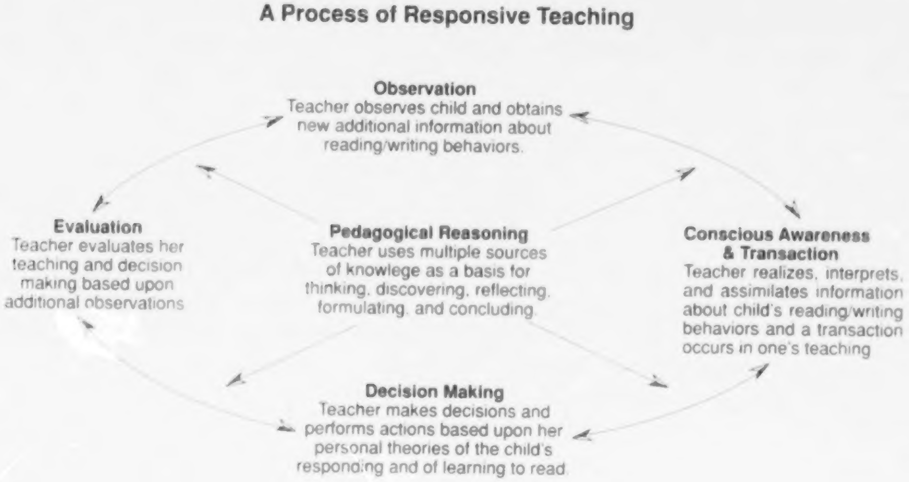
The significant work by Duffy, Roehler, and Putnam (1987) and their colleagues regarding how teachers mediate learning through their explicit, verbal explanations in teaching for strategies is supported by the findings in the current study. Duffy, Roehler, Meloth, and Vavrus (1986) identified properties characteristic of explanation to include (a) functioning in a responsive nature, (b) providing assistance, and (c) presenting information. These characteristic properties are regarded by Duffy, Roehler, and Putnam (1987) as responsive elaboration and are supported by this case study of teacher decision making.

A Process of Responsive Teaching

Data from the study led to the overarching hypothesis that an effective Reading Recovery teacher makes numerous decisions and employs the actions to carry out those decisions supported by reasoning when mediating the learning of low progress readers from other-regulated to self-regulated behaviors. Decision making within this cognitive apprenticeship setting indicates that teachers who are effective in their practice of fostering the development of a self-extending system in novice readers (Clay, 1985, 1991, 1993b) engage in a process of responsive teaching (Figure 1).

It is through engagement in the process of teaching responsively that acceleration takes place and that the magic of Reading Recovery is constituted and described.

Figure 1. **Theoretical Framework for a Process of Responsive Teaching**


A Process of Responsive Teaching
Observation
Teacher observes child and obtains new additional information about reading/writing behaviors.
Evaluation
Teacher evaluates her teaching and decision making based upon additional observations
Pedagogical Reasoning
Teacher uses multiple sources of knowlege as a basis for thinking, discovering, reflecting, formulating, and concluding.
Conscious Awareness & Transaction
Teacher realizes, interprets, and assimilates information about child's reading/writing behaviors and a transaction occurs in one's teaching
Decision Making
Teacher makes decisions and performs actions based upon her personal theories of the child's responding and of learning to read

Like the work of Vygotsky (1978), Rogoff (1990), Tharp and Gallimore (1988), and Wells and Chang-Wells (1992), this study supports the experts' contributions in the apprenticeship of the learner. The teacher's ability to interact in a contingently responsive manner to the learner's needs moment-to-moment and over time is essential to learning (Wells, 1986; Wells & Chang-Wells, 1992).

Though this study investigated the decision making of an effective and experienced teacher, it provides support to the findings of Lyons, Pinnell, and DeFord's (1993) study of in-training teachers' responses. While their study identified interrelated phases of learning to become a responsive teacher, this current study offers a theoretical framework indicating the complexity of the responsive teaching process. It provides an emic perspective of a responsive teacher and the process that is engaged when teaching is effective.

The process of responsive teaching can be described in terms of several features that are intricately associated with one another. Although the schema of the theoretical framework (see Figure 1) may appear linear in nature, in actuality it is multidirectional.

The responsive nature of the effective teacher allows the teacher to closely and systematically observe the child while engaged in literacy tasks. Observation is intricately linked to effective decision making which is a critical aspect in the process of responsive teaching. These findings further support the work of Clay (1991, 1993a, 1993b). Jaggar (1985) acknowledged that observation plays a critical role in teaching, indicating that it is the connective link between theory and practice. Collins, Brown, and Holum (1991) also identified observation as playing a surprisingly key role. They stated that:

> . . . the interplay among observation, scaffolding, and increasingly independent practice aids apprentices both in developing self-monitoring and correction skills

> and in integrating the skills and conceptual knowledge needed to advance toward expertise. (p. 9)

As the teacher observes the child's reading and writing behaviors, new or additional information concerning the learner's problem-solving abilities on text is obtained. The teacher's awareness of this information is brought to a conscious level and realized or perceived in terms of what the behaviors indicate about the child's functioning (Clay, 1991; Werstch, 1985). Assimilation of this knowledge into the teacher's current knowledge of the child and knowledge of how children learn to read enhances one's decision making.

The process of responsive teaching must encompass an astute conscious awareness of what the surface reading behaviors imply about the child's underlying cognitive processes (Clay, 1991). Engagement in responsive teaching appears to be the essence of what Clay (1990) referred to as the magic of Reading Recovery.

Similar to the transactional theory of Rosenblatt (1988), a transaction takes place in the teacher's thinking and in subsequent interactions with the child. Based on new or additional knowledge of the child obtained through observation, the teacher now formulates a new, ongoing tentative theory of the child's responding (Clay, 1991). Meyers and Ringler's (1980) hypothesis that cognitive dissonance provides the ontogenesis of personal theory building is supported by this study.

Within the cognitive apprenticeship setting of Reading Recovery, an effective teacher demonstrated that her knowledge was continuously restructured based on observations of the child and on her personal theory of learning to read. This idea is supported by Gaffney (1993) who stated that if teaching is responsive, then the child changes the teacher. Through observational information and the teacher's theory of how children learn to read, the teacher was responsive.

A personal tentative theory based on cumulative observations is the basis of teacher knowledge sources and supports the notion of an incomplete theory (Clay, 1991). In this way, teacher observation is intricately linked with pedagogical reasoning. Observation is the heart of responsive teaching as pedagogical reasoning is the heart of decision making.

Pedagogical reasoning permeates the process of responsive teaching and provides support to the act of decision making. When engaged in making a decision the teacher accesses multiple sources of knowledge supporting the professional knowledge base (Shulman, 1986b). Based upon tentative personal theories, the teacher taps knowledge of the child's responses (knowledge of child), knowledge of how children learn to read (knowledge of content), and knowledge of how to present or represent the content to the child (pedagogical content knowledge).

The process of pedagogical reasoning offered by Schulman and Skyes (1986) is supported by this study; the teacher was engaged in transforming her knowledge of the child and her content knowledge of how children learn to read into ways to mediate learning. The transformations or ways to assist the students' cognitive development through the zone of proximal development were based on personal theory supported by multiple knowledge sources.

The reflective comments also revealed the teacher's evaluation of her teaching decisions, evaluation of the lesson in specific or general terms, and evaluation of herself. Teacher evaluation was viewed as important in the process of decision making with regard to the responsive nature of the teacher.

Responsive teaching is an ongoing, dynamic process between child and teacher. The teacher's evaluation of her own teaching and decision making is checked by additional observations. These observations sustain engagement in the generative process of responsive teaching, once again directing the teacher's attention to observations of the child's reading and writing behaviors.

The following reflection vignette of Nathan's reading while he was attempting to regulate his own reading behaviors reveals the essence of responsive teaching.

> I like and was real excited to see, at the end of the story, when he said, 'Good sleep the farmer. I can sleep.' That he didn't look up for a minute—for a few seconds because I think he was replaying in his mind what he'd just said.
>
> And he said to me, 'Was that wrong? or 'Was that right?' And I went ahead and told him he could check and see if he wanted to.

This example provides a clear picture of the teacher's actions in carrying out her decision and her pedagogical reasoning for doing so. It further shows the delicate balance of providing assistance in the mediation of student learning from other-regulated to self-regulated behavior and describes how the teacher accomplished this responsive teaching act.

From this case study of an effective Reading Recovery teacher whose conscious decision making was not minimized by routines, it appears that the quality of decision making is directly related to the responsiveness of the teacher's interactions. Similar to Gallimore, Dalton, and Tharp's (1986) study, responsive teaching by definition requires and necessitates that *in-flight adjustments* occur "if the teacher is to assist performance in the ZPD, because it is not always possible to anticipate what ideas and knowledge students will bring to a text" (Tharp & Gallimore, 1988, p. 234).

Therefore, observation can be thought of as the heart of responsive teaching and serves as the basis for decision making during cognitive apprenticeships. Such conclusions support and extend the large body of Clay's (1966, 1982, 1985, 1991, 1993b) work on observation.

A process of responsive teaching can be identified and described in terms of teacher decisions, teacher actions, and teacher reasoning that permeates decision making. It is through the responsive teaching process that learning by novice readers and writers can be mediated from other-regulated to self-regulated behaviors and, thereby, foster independent readers and writers.

References

Borko, H., Cone, R., Russo, N.A., & Shavelson, R. (1979). Teacher's decision making. In P. L. Peterson & H. J. Walberg (Eds.), *Research on teaching* (pp. 136-160). Berkeley: McCutchan.

Borko, H., & Shavelson, R.J. (1990). Teacher decision making. In B.F. Jones & L. Idol (Eds.), *Dimensions of thinking and cognitive instruction*, (pp. 311-346). Hillsdale, NJ: Lawrence Erlbaum.

Brandt, R. (1992). On research on teaching: A conversation with Lee Shulman. *Educational Leadership*, 49(7), 14-19.

Bruster, B. (1991). *Instructional scaffolding: The effective use of teacher-student dialogue.* Unpublished doctoral dissertation, Texas Woman's University, Denton.

Buchmann, M. (1980). *Practitioners' concepts: An inquiry into the wisdom of practice* (Occasional Paper No. 29). East Lansing: Michigan State University, The Institute for Research on Teaching.

Clay, M.M. (1966). *Emergent reading behavior.* Unpublished doctoral dissertation, University of Auckland.

Clay, M. M. (1982). *Observing young readers: Selected papers*. Portsmouth, NH: Heinemann.

Clay, M.M. (1985). *The early detection of reading difficulties*. Portsmouth, NH: Heinemann.

Clay, M.M. (1990, April). *Reading Recovery in the United States: Its successes and challenges*. Speech presented at the Annual Meeting of the American Educational Research Association, Boston.

Clay, M.M. (1991). *Becoming literate: The construction of inner control*. Portsmouth, NH: Heinemann.

Clay, M.M. (1993a). *Reading Recovery: A guidebook for teachers in training*. Portsmouth, NH: Heinemann.

Clay, M.M. (1993b). *An observation survey*. Portsmouth, NH: Heinemann.

Collins, A., Brown, J.S., & Holum, A. (1991, Winter). Cognitive apprenticeship: Making thinking visible. *American Educator*, 6-11, 38-46.

Collins, A., Brown, J.S., & Newman, S.E. (1989). Cognitive apprenticeship: Teaching the craft of reading, writing, and mathematics. In L.B. Resnick (Ed.), *Knowing, learning, and instruction: Essays in honor of Robert Glaser* (pp. 453-494). Hillsdale, NJ: Lawrence Erlbaum Associates.

Dorn, L.J. (1994). *A Vygotskyian perspective on literacy acquisition: Talk and action in the child's construction of literate awareness*. Unpublished doctoral dissertation, Texas Woman's University, Denton.

Duffy, G.G. (1990). Whatever became of teacher effectiveness? *Reading Psychology, 11*(4), iii-x.

Duffy, G.G. (1993a). Rethinking strategy instruction: Four teachers' development and their low achievers' understandings. *The Elementary School Journal, 93*(3), 231-247.

Duffy, G.G. (1993b). Teacher's progress toward becoming expert strategy teachers. *The Elementary School Journal, 94*(2), 109-120.

Duffy, G.G., & Ball, D. L. (1986). Instructional decision-making and reading teacher effectiveness. In J.V. Hoffman (Ed.), *Effective teaching of reading: Research and practice* (pp. 163-180). Newark, DE: International Reading Association.

Duffy, G.G., Roehler, L.R., Meloth, M.S., & Vavrus, L.G. (1986). Conceptualizing instructional explanation. *Teaching and Teacher Education, 2*(3), 197-214.

Duffy, G.G., Roehler, L., & Putnam, J. (1987). Putting the teacher in control: Basal reading textbooks and instructional decision making. *Elementary School Journal, 87*, 357-366.

Elliott, C.B. (1994). *Pedagogical reasoning: Understanding teacher decision making in a cognitive apprenticeship setting*. Unpublished doctoral dissertation, Texas Woman's University, Denton.

Frasier, D.F. (1991). *A study of strategy use by two emergent readers in a one-to-one tutorial setting*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

Gaffney, J. (1993, June). *Research of early literacy program in the United States*. Paper presented at the Reading Recovery Teacher Leader Institute, Dublin, OH.

Gallimore, R., Dalton, S., Tharp, R.G. (1986). Self-regulation and interactive teaching: The impact of teaching conditions on teacher's cognitive activity. *Elementary School Journal, 86*(5), 613-631.

Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.

Jaggar, A.M. (1985). On observing the language learner: Introduction and overview. In A. Jaggar & M.T. Smith-Burke (Eds.), *Observing the language learner* (pp. 1-7). Newark, DE: International Reading Association.

Kennedy, M.M. (1979). Generalizing from single case studies. *Evaluation Quarterly, 3*, 661-679.

Leinhardt, G. (1990). Capturing craft knowledge in teaching. *Educational Researcher, 19*, 18-25.

Leinhardt, G. & Greeno, J.G. (1986). The cognitive skill of teaching. *Journal of Educational Psychology, 78*, 75-95.

Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.

Lyons, C.A., Pinnell, G.S., & DeFord, D. (1993). *Partners in learning*. New York: Teachers College Press.

Merriam, S.B. (1988). *Case study research in education*. San Francisco: Jossey-Bass.

Meyers, R.S., & Ringler, L. (1980). Teacher interns' conceptualization of reading theory and practice. In M.L. Kamil & A.J. Moe (Eds.), *Perspectives on reading research and instruction*. Washington, D.C: National Reading Conference.

Pinnell, G.S. (1991). Teachers and children learning. In D.E. DeFord, C.A. Lyons, & G.S. Pinnell, (Eds.), *Bridges to literacy* (pp. 17-187). Portsmouth, NH: Heinemann.

Pressley, M., Goodchild, F., Fleet, J., Zajchowski, R., & Evans, E.D. (1989). The challenges of classroom strategy instruction. *Elementary School Journal, 89*, 301-342.

Rogoff, B. (1990). *Apprenticeship in thinking*. New York: Oxford University Press.

Rosenblatt, L. (1988). *Writing and reading: The transactional theory* (Center for the Study of Writing, Technical Report No. 13). University of California at Berkeley and Carnegie Mellon University.

Rubin, L. (1989). The thinking teacher: Cultivating pedagogical intelligence. *Journal of Teacher Education, 40*(6), 30-34.

Shavelson, R.J. (1983). Review of research on teacher's pedagogical judgements, plans and decision. *Elementary School Journal, 83*(4), 392-413.

Shannon, D.S. (1990). *A descriptive study of verbal challenge and teacher response to verbal challenge in Reading Recovery teacher training*. Unpublished doctoral dissertation, Texas Woman's University, Denton.

Shulman, L.S. (1986a). Those who understand: Knowledge growth in teaching. *Educational Researcher, 18*(1), 4-13.

Shulman, L.S. (1986b). Paradigms and research programs in the study of teaching: A contemporary perspective. *Handbook of research on teaching*, 3rd edition (pp. 3-36). New York: Macmillan.

Shulman, L.S. (1987). The wisdom of practice: Managing complexity in medicine and teaching. In D.C. Berliner & B.V. Rosenshine (Eds.), *Talks to teachers* (pp. 369-386). New York: Random House.

Shulman, L.S., & Skyes, G. (1986, March). *A national board for teaching? In search of a bold standard*. Paper commissioned for the Task Force on Teaching as a Profession, Carnegie Forum on Education and the Economy.

Tharp, R., & Gallimore, R. (1988). *Rousing minds to life*. Cambridge: Cambridge University Press.

Vygotsky, L.S. (1978). *Mind in society*. Cambridge: Harvard University Press.

Walker, R. (1980). The conduct of educational case studies: Ethics, theory and procedures. In W.B. Dockerell & D. Hamilton (Eds.), *Rethinking educational research* (pp. 30-63). London: Hodder & Stoughton.

Warner, D.R. (1987). *An exploratory study to identify the distinctive features of experienced teachers' thinking about teaching*. Unpublished doctoral dissertation, The University of New England, Armidale, Australia.

Wells, G. (1986). *The meaning makers: Children learning language and using language to learn*. Portsmouth, NH: Heinemann.

Wells, G., & Chang-Wells, G.L. (1992). *Constructing knowledge together*. Portsmouth, NH: Heinemann.

Wilson, S. (1979). Explorations of the usefulness of case study evaluations. *Evaluation Quarterly, 3*, 446-459.

Wilson, S.M., Shulman, L.S., & Richert, A.E. (1987). '150 different ways' of knowing: Representations of knowledge in teaching. In J. Calderhead (Ed.), *Exploring teacher's thinking* (pp. 104-124). London: Cassell Education Limited.

FIRST AND SECOND ROUND READING RECOVERY: WHAT DIFFERENCE DOES IT MAKE FOR DISCONTINUATION AND PROGRAM LENGTH?

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FIRST GRADERS WHO PARTICIPATED IN THE READING RECOVERY (RR) program during the 1994-95 school year either entered the program at the beginning of the school year (first round), or later, after another child was released (second round). First round children discontinued more frequently, but second round children discontinued faster. Children who received some additional literacy help while on the waiting list for Reading Recovery were more likely to discontinue than children who did not. Benefits of participating in a literacy group taught by a trained Reading Recovery teacher were not significantly greater than other forms of extra help. The findings should be important to educators who work with at-risk children and to elementary school administrators responsible for decisions about literacy intervention programs such as Reading Recovery.

The Reading Recovery (RR) program (Clay, 1985, 1993b; Pinnell, 1989) is an intensive, one-on-one, short-term intervention for first graders who are at risk for literacy failure. Children selected for the program meet with a Reading Recovery teacher for 30 minutes each day. The goal of the program is to accelerate a child's literacy learning until he or she reaches the average level of the classroom, so that he or she can better benefit from classroom instruction. Once a child reaches this level, he or she is *discontinued*, and another child in need of service can begin the program in the first child's place.

The program is individualized for each child's literacy-learning needs. Rather than having a set period of time in which to teach the child as much as possible, Reading Recovery has a set amount of literacy skills (based on the difference between the child and the other children in the class) to teach the child within a flexible amount of time. The program always selects the neediest children for the program first, and in some schools, including all the schools in the present study, other children in need of service are placed on a waiting list. The children who start the program first are *first round* Reading Recovery children. When a first round child leaves the program, a child from the waiting list begins the program in his or her place. These are *second round* Reading Recovery children. If the second round child discontinues before the end of the school year, a *third round* child may be started into the program. For purposes of the present study, however, second round children are defined as children who start the program in the second round or later.

Despite the fact that Reading Recovery has been implemented in the United States since the 1987-88 school year (National Diffusion Network, 1992), a search of the ERIC database, current through February, 1996, revealed no studies addressing second round Reading Recovery children. Questions about second round Reading Recovery children are important since Reading Recovery teachers generally serve up to eight children per year, four first round and four second round (Dunkeld, 1992).

Reading Recovery is an individualized intervention program, so more resources are spent on children who spend more weeks in the program. The program is promoted as more cost-effective (Dyer, 1992) and outcomes-producing (Karweit & Wasik, 1994) than retention and/or remediation. Consequently, two important pieces of information for decision makers who have implemented or are considering implementing the Reading Recovery program are how many children successfully discontinue and how long children take to discontinue. Differences on these measures between first round and second round Reading Recovery children should be important to school district decision makers and to Reading Recovery teachers and professionals.

It is important to note that this study includes data from every child who began the Reading Recovery program, regardless of how long he or she was in the program. There has been some criticism (e.g., Shanahan & Barr, 1995) of the practice of including only *full program children* (those with at least 60 lessons and those who discontinued with fewer) in discontinuation rate statistics. Discontinuation rates presented here should not be compared with discontinuation rates for *program children* or *full program children* published elsewhere.

Since second round children start Reading Recovery later in the year, some may not have enough time to discontinue. Among the schools included in the present study, many second round children do not begin the program until March or April (Rhodes-Kline, 1995). This typically gives first round children more time in the program than second round children. It was therefore predicted that discontinuation rates would be slightly higher among first round children than among second round children.
Hypothesis #1: *First round children will be more likely to discontinue than second round children.*

Since Reading Recovery selects the lowest-scoring children for the program first, first round children may be expected to be somewhat needier in terms of literacy intervention and help. It was therefore predicted that, among children who discontinued, first round children would have been in the program longer than second round children.
Hypothesis #2: *First round children will take longer to discontinue from the Reading Recovery program than second round children.*

In some schools, extra help is available for children on the waiting list. Since all Reading Recovery children are at risk, any kind of additional help for children on the waiting list was predicted to increase children's chances of discontinuing, compared to children who received no help while waiting for a slot to open up in the Reading Recovery program.
Hypothesis #3: *Second round children who receive extra help while they are on the waiting list will be more likely to discontinue than second round children who receive no such waiting list assistance.*

Sometimes, waiting list help was in the form of a literacy group led by a trained Reading Recovery teacher. In these groups, children practice literacy skills such as reading and writing as a supplement to their regular classroom activities. Since Reading Recovery teacher training involves the in-depth study of the process of literacy acquisition, it was predicted that this training would carry over somewhat to a small group setting. Second round children who participated in a literacy group led by a trained Reading Recovery teacher were predicted to be more likely to discontinue than second round children who received another form of help while they were on the waiting list.
Hypothesis #4: *Second round children who participate in a literacy group with a trained Reading Recovery teacher will be more likely to discontinue than second round children who receive other forms of help.*

In addition to increasing children's probability of discontinuation, waiting list interventions were expected to speed time to discontinuation among children who were successful in the program. Again, any form of extra help was predicted to be of value, but participation in a literacy group led by a trained Reading Recovery teacher was predicted to be of more value for rapid discontinuation from the Reading Recovery program than other forms of assistance.

Hypothesis #5: *Second round children who receive extra help while on the waiting list will discontinue faster than second round children who do not receive assistance.*

Hypothesis #6: *Second round children who participate in a literacy group with a trained Reading Recovery teacher will discontinue faster than second round children who receive other forms of assistance.*

Methods

Data were gathered in one northern New England state from first graders in the Reading Recovery program during the 1994-95 school year. Second round children were operationally defined as children who started the program in November or later. This definition was informally validated by Reading Recovery teacher leaders, responsible for training of and continuing contact with Reading Recovery teachers. Of the 1403 children served through Reading Recovery for the year, 532 fit this definition. The remaining 871 who began Reading Recovery by September or October were defined as first round Reading Recovery children.

Ninety-nine percent of first round children started the Reading Recovery program in August or September. The most frequent months of entry into the program for second round children were February and March, when 21 percent and 30 percent started respectively.

Reading Recovery teachers collected and recorded data from all children in the state who received Reading Recovery regarding whether each child discontinued from the program and, if so, how much time he or she took to do so. Length-of-time data included total weeks in the program and number of Reading Recovery lessons. It should be noted that the first two weeks of Reading Recovery, when the teacher and child reinforce what the child knows and can do, in order for the child to become independent and in control of his or her "personal corpus of responses" (Clay, 1993b, p. 13), were not counted as lessons since no new skills or strategies were taught. These first two weeks were, however, counted as part of total weeks in the program.

Services were available in some schools for children on the waiting list. These services were categorized as (a) literacy group with a trained Reading Recovery teacher, (b) other extra help, and (c) no extra help. Reading Recovery teachers collected information regarding what services, if any, second round children received while on the waiting list. Some second round children were not on the waiting list prior to being taken into the program. These children formed a fourth category.

Unfortunately, data regarding waiting list interventions were missing from almost half of all second round Reading Recovery children. The most reasonable explanation for this is that the item on the data form which requested the information was newly added for the 1994-95 school year, and many Reading Recovery teachers did not remember to mark it for all second round children. There was no reason to expect that these omissions were systematic and there were still enough data to continue with the analyses.

All analyses were focused and the magnitude of effect (r) was computed in addition to the level of significance for each statistic. This was especially important due to the large differences in sample size (and, consequently, power) for the various questions (Rosenthal & Rosnow, 1991). An alpha level of .05 was used for all statistical tests.

Results

Hypothesis #1: Discontinuation Rates

Five hundred ten out of 871 first round children successfully discontinued, compared with 244 out of 532 second round children. First round children were more likely to discontinue from the program than second round children ($x^2_{(1, N = 1403)} = 21.39, p < .001, r = .12$), supporting the first hypothesis.

Hypothesis #2: Time in the Program

Table 1 shows time in the program for discontinued first round and second round Reading Recovery children. Despite the wide variation in program length for children in both groups, second round children discontinued after fewer lessons ($t_{635} = 29.51, p < .001, r = .72$) and in fewer weeks ($t_{620} = 30.04, p < .001, r = .77$) than first round children . On average, second round children discontinued in less than half the time of first round children.

Table 1
Time in the Program for Reading Recovery Students

	Program Starting	
	First Round	Second Round
Number of Lessons		
Mean	78.5	33.4
Standard Deviation	(23.8)	(17.3)
Mode	80	40
N	N=510	N=244
Total Number of Weeks		
Mean	23.0	10.5
Standard Deviation	(6.4)	(4.7)
Mode	21	11
N	N=509	N=243

Hypotheses #3 and #4: Discontinuation Rates and Waiting List Services

Table 2 shows discontinuation rates by type of waiting list service received for second round children. The difference between participation in a literacy group with a trained Reading Recovery teacher and other forms of assistance was not significant ($x^2_{(1, N = 174)} = 2.23, p = .13, r = .11$). However, children who received some kind of assistance while on the waiting list were more likely to discontinue from Reading Recovery than children who did not ($x^2_{(1, N = 297)} = 5.14, p = .02, r = .13$).

Table 2

Discontinuation Rates and Waiting List Services

	Discontinuation		Total
	Not Discontinued	Discontinued	
	Count	Count	
Waiting List Services			
Trained Reading Recovery Teacher	38	64	102
Other Extra Help	35	37	72
No Extra Help	25	26	51
Not On Waiting List	43	29	72
Total	**141**	**156**	**297**

Hypotheses #5 and #6: Time to Discontinuation and Waiting List Services

Table 3 shows the time it took second round children to discontinue according to the type of waiting list intervention they received, if any. Children who participated in a literacy group with a trained Reading Recovery teacher did not discontinue significantly faster than children who received other kinds of waiting list assistance (number of lessons $F_{1,99} < 1$, $p = .43$, $r = .01$; total weeks $F_{1,99} < 1$, $p = .73$, $r = .03$). Neither did waiting list help in general decrease children's time to discontinuation (weeks in the program $F_{1,154} = 3.25$, $p = .07$, $r = .14$, number of lessons $F_{1,154} = 1.72$, $p = .19$, $r = .11$).

Table 3

Time to Discontinuation and Waiting List Services

	Pre-Second Round Services			
	Literacy Gp with Trained RR Teacher	Other Extra Help	No Extra Help	Not On Waiting List
Number of Weeks				
Mean	10.0	10.3	12.4	10.4
Standard Deviation	(4.1)	(3.9)	(4.9)	(4.1)
Mode	9	12	11	12
N	64	37	26	29
Number of Lessons				
Mean	32.1	34.8	42.0	32.3
Standard Deviation	(17.3)	(15.8)	(20.4)	(15.6)
Mode	18	41	28	40
N	64	37	26	29

Discussion

First round children are more likely to discontinue from Reading Recovery than second round children. Since Reading Recovery claims to select the neediest children into the first round, this may seem surprising. To test whether first round children actually do start the year with fewer literacy skills, the fall scores of first and second round Reading Recovery children on six measures of literacy skills were compared. Table 4 presents these data.

Table 4
Entering Skill Levels of First and Second Round Reading Recovery Students

	Program Starting	
Fall Test	First Round	Second Round
Letter Identification		
Mean	32.4	41.6
Standard Deviation	(13.3)	(9.2)
Concepts about Print		
Mean	9.4	11.5
Standard Deviation	(3.5)	(3.0)
Dictation		
Mean	5.2	9.9
Standard Deviation	(5.3)	(7.1)
Ohio Word Test		
Mean	0.3	0.6
Standard Deviation	(1.0)	(1.4)
Writing Vocabulary		
Mean	3.8	6.5
Standard Deviation	(3.3)	(4.8)
Text Reading		
Mean	0.7	0.9
Standard Deviation	(1.0)	(0.9)

The six tests, letter identification, concepts about print, dictation, Ohio word test, writing vocabulary, and text reading, comprise the Observation Survey (Clay, 1993a), a standard assessment for the Reading Recovery program. Children in the program are tested at the beginning and end of their first grade year. If a child enters or exits the program in the middle of the year, he or she is also tested at that time. The scores in Table 4 were taken in the beginning of the fall semester for all children, so scores reflect the levels of skill children brought to first grade. Differences between first and second round children cannot be attributable to first grade classroom instruction, since all children were tested at the same time.

The letter identification task asks children to identify all 26 letters, in both lower and upper case, plus the printed letters *a* and *g*. Each letter counts as one point. The concepts about print test assesses how much children know about the way print works, for example, that print goes left to right, what words look like, and how to hold a book. Scores range from zero to twenty-four. For the dictation test, a sentence is read to the child, and he or she is asked to write the words. The test measures the child's ability to analyze words for sounds. Every sound represented correctly is scored as a point. The Ohio word test asks children to read a list of 20 high-frequency words. The child's score indicates the number of words read correctly. On the writing vocabulary test, children write down all the words they know how to write in ten minutes. Each correct word, including the child's own name, is counted as a point. Text reading level represents the highest book in a series, ranked for difficulty, that the child could read with 90 pecent accuracy. Levels can range from 0 (inability to read "No, no, no," at the lowest level) to 30 (about a sixth-grade reading level).

The means and standard deviations in Table 4 indicate that children selected for the first round do indeed enter first grade with lower literacy skills than those who are selected later. Differences for all six measures are statistically significant (two-tailed) at the $p<.001$ level (letter identification $t_{1037}=14.10$, $p<.001$, $r=.40$; concepts about print $t_{856}=10.66$, $p<.001$, $r=.34$; dictation $t_{590}=11.75$, $p<.001$, $r=.44$; Ohio word test $t_{591}=4.32$, $p<.001$, $r=.17$; writing vocabulary $t_{566}=9.93$, $p<.001$, $r=.39$; text reading $t_{1255}=4.44$, $p<.001$, $r=.12$).

Additional differences between first round and second round children are revealed by examining end-of-year status. A child is only *withdrawn* from the program if he or she is not making sufficient progress in Reading Recovery and will be better served by an alternate program. On the other hand, children who are still in the program at the end of the year are making progress. Among first round children, 59 percent discontinued, 21 percent were still in the program at the end of the year, and 20 percent had been withdrawn. Forty-six percent of second round children were discontinued, while 52 percent were still in the program at the end of the year, and only 2 percent had been withdrawn. Although the reasons first round children do not discontinue may be somewhat varied, the main reason second round children do not discontinue appears to be lack of time in the program.

Perhaps the most significant finding of the study is that second round children who discontinue do so in approximately half the time of first round children. There are two, non-conflicting, plausible reasons for this. First round children start out the school year even farther behind the average literacy level of the class than second round Reading Recovery children. First round children are the children who, without Reading Recovery, would likely stand the highest risk for retention and/or special education. Getting first round children up to the average level of literacy of the classroom is therefore a more time-consuming task than getting second round children to the same place, since first round children start out farther behind. Interestingly, this occurs despite the fact that average classroom literacy levels (the standard to which Reading Recovery children are held for discontinuation) are higher for second round children, because the class progresses throughout the year. The other plausible reason second round children discontinue faster is that second round children are able to make some progress before starting Reading Recovery (through classroom instruction and, in some cases, with the help of small group assistance), so the groundwork is laid for faster progress once they enter Reading Recovery.

The most useful information to be gleaned from the results of hypotheses #3-#6 is that having some kind of assistance available for children on the waiting list for Reading

Recovery is beneficial. Any form of waiting list intervention appears to increase second round children's chances of discontinuing from Reading Recovery.

Some of the differences between first round and second round Reading Recovery children have been discussed. It should be remembered that both groups are judged to be at risk for literacy failure and they consequently have much in common that should put their differences in perspective. Nonetheless, Reading Recovery teachers and other professionals should be aware of the differences between the groups for several reasons.

First round children may be harder to teach than second round children, even through a very individualized program such as Reading Recovery. It would be a mistake to suggest that, because they are harder to teach, they should be referred to another program. Reading Recovery was designed for the hardest to teach children and it was designed to be a replacement for later remediation and/or retention (Clay, 1985, 1993b). Twenty-three weeks (the average length of time to discontinuation for first round children) is not a lot of time compared to the alternatives (years of special education, Title I services, and/or retention) for these children (Dyer, 1992).

Attitudes of returning Reading Recovery teachers may be affected by the different rates of progress of first and second round Reading Recovery children. Compared to the second round students a Reading Recovery teacher had in May and June, first round students the following September may seem woefully slow. This may lead to the idea that Reading Recovery students are getting farther and farther behind each year, an attitude which has been expressed informally by Reading Recovery professionals, but not substantiated by data. It may also lead to an increased tendency to withdraw children who could eventually discontinue from the program. Reading Recovery teacher leaders who are aware of the differences between first and second round Reading Recovery children may be able to assist Reading Recovery teachers in correctly evaluating first and second round Reading Recovery children, without these undesirable, potential biases.

It is important to know that second round children discontinue faster than first round children for implementation and planning purposes. If both groups took equally long to discontinue, it would be unrealistic to expect a second round child who started at the end of March to discontinue by the beginning of June. However, given that the average second round child discontinues in ten and a half weeks (compared to twenty-three weeks for the average first round child), it is certainly realistic to expect a child who starts in March to have a fair chance of discontinuation. It is also not overly optimistic to expect that some Reading Recovery teachers may be able to serve third round children, given a first round child who discontinues by December and a second round child who discontinues by March.

Examination of the data in Table 1 reveals that Reading Recovery lessons are not being conducted at the rate of five lessons per week, but rather at 3.74 (first round) and 3.93 (second round) lessons per week. (As noted previously, the first two weeks of Reading Recovery count toward total weeks in the program, although they do not count toward the number of lessons. In order to calculate the average number of lessons per week, the appropriate number in the denominator is therefore total weeks minus two, or 21.0 and 8.5 for first and second round children, respectively.) Discussions with Reading Recovery teacher leaders regarding this issue indicate that neither student nor teacher absences are primarily responsible. Rather, school and district calendars include enough field trips, assemblies, and vacation days to make four days of traditional classroom instruction the norm.

Reading Recovery is an individualized program, so generalizations about groups of Reading Recovery children, such as first and second round children, should be interpreted accordingly. By design, there is wide variation in the length of time it takes children to discontinue. In no way should the averages presented here be interpreted as goals or expectations for all children. Children start their first year of formal education with widely different levels of exposure to printed materials, different experiences with reading and writing, and different ability levels. Reading Recovery is a program that aims to correct some of the literacy inequalities among first graders, to give every child a chance at becoming literate. While district policy decisions will be made based on the costs involved with particular programs, it would be a terrible mistake to suggest that the neediest children should not be started first into the Reading Recovery program. Reading Recovery was designed for the neediest children in a classroom. Although all at-risk children can benefit from Reading Recovery, it is the neediest among them who can benefit the most.

References

Clay, M.M. (1993a). *An observation survey of early literacy achievement*. Portsmouth, NH: Heinemann.

Clay, M.M. (1993b). *Reading Recovery: A guidebook for teachers in training*. Portsmouth, NH: Heinemann.

Clay, M.M. (1985). *The early detection of reading difficulties*. Portsmouth, NH: Heinemann.

Dunkeld, C. (1992). *Reading Recovery: Full implementation, serving local, state, and national needs.* Unpublished manuscript. Portland: Portland State University.

Dyer, P.C. (1992). Reading Recovery: A cost-effectiveness and educational-outcomes analysis. *ERS Spectrum, 10,* 10-19.

Karweit, N.L., & Wasik, B. A. (1994). Extra-year kindergarten programs and transitional first grades. In R. E. Slavin, N. L. Karweit, & B. A. Wasik, (Eds.), *Preventing early school failure: Research, policy, & practice* (pp. 102 - 121). Boston: Allyn & Bacon.

National Diffusion Network (1992). *The Reading Recovery Program: Executive summary 1984- 91.* Columbus: The Ohio State University.

Pinnell, G. S. (1989). Reading Recovery: Helping at-risk children learn to read. *The Elementary School Journal, 90,* 159-181.

Rhodes-Kline, A. K. (1995). *State of Maine Reading Recovery report and evaluation, 1994-1995.* Orono: University of Maine, Center for Early Literacy.

Rosenthal, R., & Rosnow, R. L. (1991). *Essentials of behavioral research: Methods and data analysis.* New York: McGraw-Hill.

Shanahan, T., & Barr, R. (1995). Reading Recovery: An independent evaluation of the effects of an early instructional intervention for at-risk learners. *Reading Research Quarterly, 30,* 958- 996.

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This journal has been developed to provide a forum for communication among members of the Reading Recovery Council of North America and with professionals from a wide variety of disciplines. The journal has an international focus which encourages contributions by individuals with similar interests and research agendas working throughout the world. It is believed that this multidisciplinary and global perspective can make a positive contribution to the research literature. The Reading Recovery Council of North America, serving children in Canada and the United States, hopes to promote the continued engagement of those who work in Reading Recovery with their colleagues in related fields. The journal is a vehicle of communication that will disseminate difficult to obtain research and commentary, establish a network of individuals doing parallel research, and serve as a forum for ongoing discussion of issues related to literacy, teaching, and learning.

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